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# SOUND-SPEED DISTRIBUTION IN THE WESTERN INDIAN OCEAN

by

J. G. Colborn

Undersea Surveillance Department

February 1976



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#### ADMINISTRATIVE INFORMATION

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to sound-speed properties and can be summarized by a single profile for each season. Seasonal data presentations of bottom conjugate depth (the shallow conjugate of the bottom sound speed) and depth excess (water depth below the deep conjugate of the near-surface sound-speed maximum) indicate the primarily bottom-limited situation in the western Indian Ocean and identify the restricted areas of the Somali Basin with convergence-zone propagation potential.

The upper-layer characteristics of layer depth, in-layer gradient, and below-layer gradient are displayed seasonally in contour format based on sound-speed-converted BT and XBT temperature data. Emphasis is placed on the significant effects of the seasonal monsoons, and in particular the strong SW Monsoon, on the near-surface structure. Results based on the two data sources are presented separately and some comparisons are made.

### **SUMMARY**

#### PROBLEM

Analyze and display acoustically significant features of the sound speed distribution for the western Indian Ocean utilizing available hydrocast data and temperature data from mechanical BTs and XBTs.

#### RESULTS

Hydrocast data with computed sound speeds at standard depths provide the basic information to define fourteen areas of the western Indian Ocean that are reasonably homogeneous with regard to sound-speed properties and can be summarized by a single profile for each monsoon-oriented season. The greatest variability in vertical sound speed is produced at mid-depths near the Gulf of Aden by advective and diffusive mixing of the highly saline Red Sea Water.

Seasonal data presentations of bottom conjugate depth (the shallow conjugate of the bottom sound speed) and depth excess (water depth below the deep conjugate of the near-surface sound-speed maximum) are presented for the region west of 75°E and north of 20°S. Results indicate a primarily bottom-limited situation and identify restricted areas of the Somali Basin with convergence-zone potential.

The upper-layer characteristics of layer depth, in-layer gradient, and below-layer gradient are displayed seasonally in contour format based on sound-speed-converted BT and XBT temperature data. Emphasis is placed on the significant effects of the seasonal monsoons, and in particular the strong SW Monsoon, on the near-surface structure. Results based on the two data sources are presented separately and some comparisons are made.

#### RECOMMENDATIONS

Extensions of the present analysis into the eastern waters and south to about 30°S latitude will complete the presentation of summary information for the strategically significant regions of the Indian Ocean. Additional study is required to determine the nature and extent of the perturbations created by the mid-depth intrusion of Red Sea water on the western Arabian basin. Additional hydrocast data and XBT data to supplement the current set are particularly needed for the southeastern Arabian basin and the south-central Indian Ocean region.

Interpretations of data presentations based on summarized historical information are restricted to general conclusions regarding the expected ranges of variables and gross distributions. Knowledge of synoptic spatial variations of sound-speed characteristics over ranges of the order of magnitude of expected acoustic propagation is important to the understanding of environmental influences. This information should be provided by at-sea exercises designed to answer specific propagation problems.

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### INTRODUCTION

The strategic significance of the Indian Ocean has increased in the last decade; however, an understanding of the basic acoustic structure of this oceanic region has lagged that of other major oceans. The International Indian Ocean Expedition (IIOE, 1960–65) has provided for the first time an amount of temperature and salinity data that seems adequate to support investigation of the distribution and seasonal variability of sound speed in the upper layers. A seasonal analysis of the temperature in the upper 500 m and the structure of the underlying main oceanic thermocline has been completed (Ref. 1). A good general analysis of the sound-speed structure with data presented for 12 cross sections and 36 individual locations north of 10°S has been completed by NAVOCEANO (Ref. 2).

NUC is the lead laboratory for undersea surveillance for all ocean domains, including the Indian Ocean. Studies have been proposed to support the Naval research effort to establish operational capability in this region, and, specifically, NUC is responsible for providing environmental inputs for acoustic prediction to support undersea surveillance efforts. This report is an initial step to satisfy this responsibility.

The objective of this study is to provide a comprehensive summary of the spatial and temporal distribution of sound-speed structure for all regions of the Indian Ocean of interest to the Navy. The present report covers the region of the Indian Ocean north of 20°S and west of 75°E, concentrating on the main ocean basins. The Red Sea, Gulf of Aden, Persian Gulf, Gulf of Oman, and shallow continental margins are essentially excluded. It is desirable to define sound speed provinces and to present representative sound-speed profiles for each province and season to support acoustic modeling studies and exercise planning The seasonal distribution of significant acoustic properties affecting long-range propagation is also important. Convergence-zone propagation requires that the near-surface sound speed maximum be exceeded at some depth above the bottom to allow the upward refraction of deeply penetrating sound energy from a shallow source. The western Indian Ocean is primarily bottom limited, with some regions of seasonal depth excess occurring in the deepest portions of the Somali Basin. The primary parameter analyzed and displayed is the bottom conjugate depth for bottom-limited regions, with the depth excess distribution displayed for those regions and seasons where it occurs. These two parameters are defined in Fig. 1. In addition, distribution of the surface-layer characteristics of soniclayer depth, in-layer gradient, and below-layer gradient are displayed seasonally. All data displays are presented in Appendices A, B, C, and D. >

The basic data to support this analysis are provided by the recent NODC hydrocast data set, updated through 1973, which contains some 491,000 observations world-wide. A total of 3322 complete deep casts were available to provide sound-speed profile information for the western Indian Ocean. Initially these data were divided into four basic seasons determined by the two periods of maximum monsoon influence on the upper layers and the two intervening transition periods. Table 1 indicates the seasons as defined for this study. These seasonal data sets were analyzed along with supporting oceanographic information for this region in order to define sound-speed provinces that contain sufficient

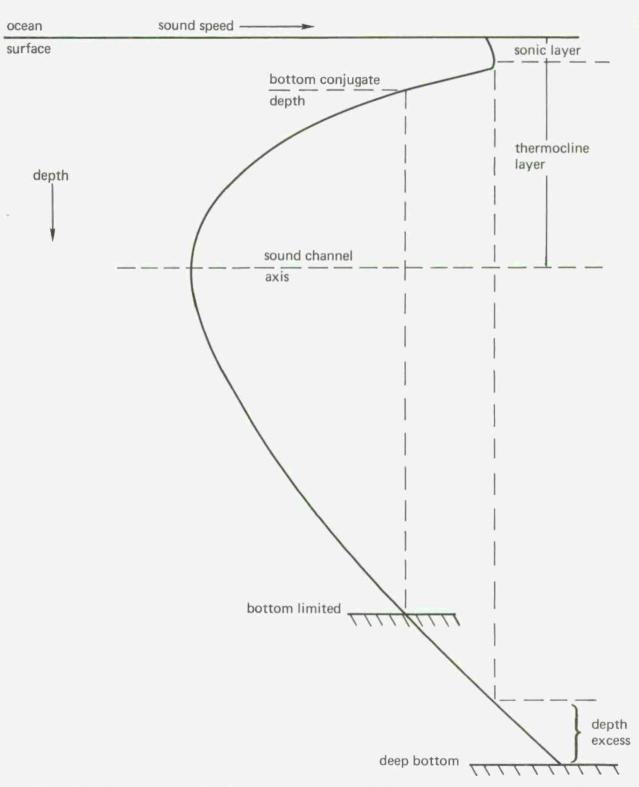


Figure 1. Example sound-speed profile indicating contrasting conditions for bottom limited situation and deep bottom situation. Bottom conjugate depth defines depth below which bottom limiting does not occur for horizontal rays emitted from source. Depth excess is water depth below conjugate of near-surface sound-speed maximum for deep bottom situation. A minimum depth excess is required for effective convergence-zone propagation.

TABLE 1. NORTHERN HEMISPHERE SEASONS FOR THE INDIAN OCEAN.

	Y Y	
Season	Months	Monsoon Period
1	Dec-Feb	NE Monsoon
2	Mar-May	Transition
3	Jun-Sep	SW Monsoon
4	Oct-Nov	Transition

consistency in sound-speed characteristics to be represented by a single profile for each season. These province definitions are necessary compromises that are limited by the quality and quantity of the data and the practical necessity of providing a reasonable number of provinces for summary purposes. Individual sound-speed profiles were also processed to determine the bottom-limiting or depth-excess properties in order to provide the seasonal distributions of bottom conjugate depth and depth excess.

The analysis of the surface-layer characteristics is provided by the NODC mechanical BT data set for the western Indian Ocean, which contains 8017 observations. BT data were used to provide better coverage and because of the superior depth resolution provided by the 5-m-interval digitized format of temperature. Mean salinities were employed to produce equivalent sound-speed profiles from the temperature data, and the depth and gradient parameters were computed from these profiles. Although a reasonable number of observations were available, the distribution is not homogeneous and some voids occur in the displays. XBT data from the Fleet Numerical Weather Central (FNWC) were obtained in hopes of supplementing the mechanical BT data. However, XBT temperatures are digitized in a different format. Displays of the computed layer depth, in-layer gradient, and below-layer gradient have been maintained separately for BT data and XBT data until it can be established that computed values from these two sources can be combined.

The concept of spatially contouring a time-dependent variable can be defended only if the application respects the useful limits of this type of presentation. It should never be assumed that these presentations provide even an approximation of the synoptic situation. The contour charts are summary sources of information on the range, order of magnitude, and an approximation of the general relative distribution of the parameters. The bottom conjugate depth and depth excess displays can be used operationally, but as a general indicator only. The surface-layer-parameter displays should never be used to attempt to predict actual conditions for any particular time and location.

#### DATA AND PROCESSING

#### HYDROCAST DATA

The basic hydrocast data used in this analysis are a subset of the recent set from the National Oceanographic Data Center (NODC) updated through 1973 containing approximately 491,000 hydrocasts worldwide. After sorting out shallow (continental shelf) casts and incomplete casts, the set for the western Indian Ocean north of 20°S and west of 75°E contains 3322 stations.

Initially these data were grouped into the four monsoon and transition seasons selected for the northern Indian Ocean (Table 1). Based on a consideration of wind observations (Ref. 3) the NE Monsoon is established in November, persists through March, and is most intense in January. April is transition. The SW Monsoon is established in May in the Arabian Sea and persists through September, with maximum intensity in July. By October the SW Monsoon system is breaking down. The monsoons actually progress across the west Indian Ocean, and the effects on surface-layer sound speed will lag the occurrence of the winds. The seasons presented in Table 1 reflect compromises necessary to produce a single set of seasons for the entire north Indian Ocean. Data coverage is weakest during the short Oct-Nov transition season and the following NE Monsoon (Dec-Feb) season. The initial task to define preliminary sound speed provinces for data grouping was supported by available information on bathymetry (Refs. 4 and 5), currents, sea-surface temperature distribution (Ref. 6), surface heat exchange (Ref. 7), and a recently completed study of the thermal structure (Ref. 1). Initial province boundaries, based on the combined information from these sources, were used to group the sound speed profile data for each season.

A quick look at a sample of the sound-speed profiles (computed by NODC using Wilson's October 1960 equation) for each province/season resulted in initial adjustments to the boundaries to align with obvious natural transition zones between regions with different sound-speed structures. Final boundary selection was based on an individual evaluation of all profiles within each province/season. The procedure consisted of a detailed analysis of composite profile plots at several depth scales, individual profile location plots, and summary statistics for each province/season. Boundaries were shifted and new provinces created as necessary to combine similar profile types together. The final results displayed significant changes and alterations to the preliminary provinces based only on external support information. The data were processed statistically to select a single "typical" profile to represent each final province and season. The actual procedure, outlined in Ref. 8, involves converting each profile array, a vector, into an equivalent scalar quantity based on the profile "closeness" to the mean of the sample. The scalar quantities can be rank ordered, and an actual observed profile can be selected to represent the sample. Plots and listings for each selected profile are presented in Appendix A and a discussion of the results and application is contained in the next section.

The hydrocast-derived sound-speed data set was further processed to provide basic information to determine the distribution of bottom conjugate depth and depth excess in the deeper basins. These two parameters are mutually exclusive (see Fig. 1), and because of the bottom limiting condition existing over most of the western Indian Ocean, bottom conjugate depth is the primary parameter to be computed and displayed. Initially all

sound-speed profiles were grouped into four natural basins. The topographic boundaries of the Arabian Basin, the Somali Basin, the Comoro Basin, and the Mascarene Basin are apparent on up-to-date bathymetric maps (Refs. 4, 5 and 9). Fig. 2 presents significant features of Indian Ocean topography and geographic references. Deep data from each basin were checked to verify homogeneity. A minor variation in the deep profile data was observed in the western strip of the Mascarene Basin along the eastern coast of Madagascar and these data were omitted (see discussion of Provinces 16 and 17 in the next section). Mean sound speeds were computed at standard depths for each basin from 2000 m to 5000 m. In the Somali Basin the 6000-m sound speed was estimated on the basis of deep-water data provided in Ref. 2.

The sound-speed profiles for each basin were separated by season, and the portion of each profile above the main sound channel axis was searched to locate the upper-layer sound speed maximum. The observed bottom depth at the profile location (provided in NODC profile header information) was used with the mean deep profile for the basin to compute the sound speed at the bottom. The use of mean data for the deep portion of the profile allowed the computation of bottom conjugate depth or depth excess for any profile extending deep enough to include the upper-layer maximum and a portion of the underlying thermocline. This greatly increased the data coverage that would have resulted from the use of only individual deep profiles. The bottom sound speed at each profile location was computed from a quadratic fit to the mean sound speed profile for the basin. The fit was made to the set of three consecutive mean sound speeds with a mid-depth nearest to the observed bottom depth. This computed bottom sound speed was then compared to the upper-layer maximum sound speed to determine whether bottom limiting exists for this situation. If the bottom sound speed is less than the maximum, limiting does exist and the depth of the upper-layer conjugate of the bottom sound speed was determined by linear interpolation of standard depths. This bottom conjugate depth and the results of all such computations were plotted at the representative profile locations and contoured for each season.

The complementary situation, where the bottom sound speed exceeded the upper maximum, yielded a value of the critical depth. This parameter was computed by solving for the roots of the quadratic equation for the proper three-point interval of deep mean sound speeds created by inserting the upper maximum sound speed value. The only positive root was chosen as the critical depth. Depth excess was computed from the difference between critical depth and the observed bottom depth. Individual values of depth excess, indicated on the contour charts of bottom conjugate depth, are observed to cluster mainly in the northern Somali Basin region (see Appendix B).

#### **BATHYTHERMOGRAPHIC DATA**

A total of 8017 temperature observations contained in the NODC mechanical BT (bathythermograph) file, updated through 1970, were processed to provide information on the sound-speed structure in the upper layers of the western Indian Ocean. BT data were used for this part of the analysis because they were more numerous than hydrocast data and because the 5-m-interval depth spacing provides greater depth resolution than can be obtained from hydrocast data. The disadvantages of using BT data are less absolute

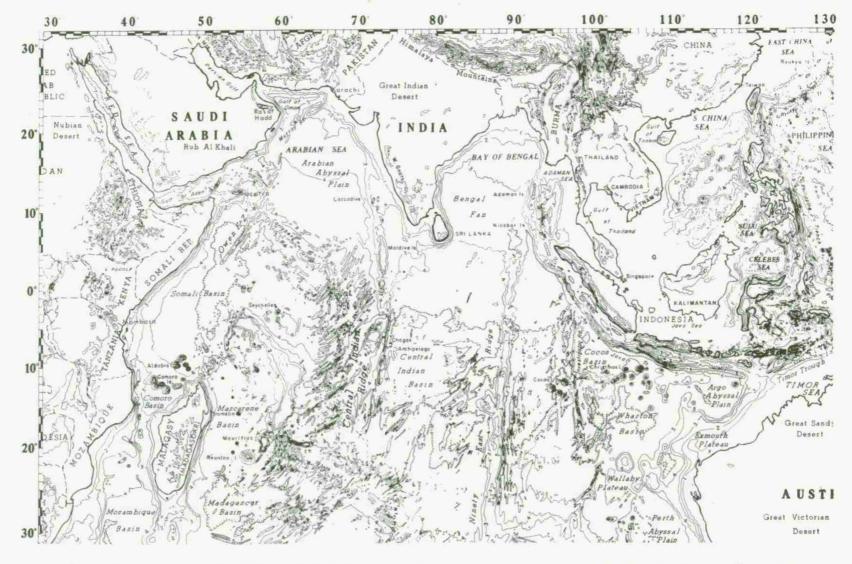


Figure 2. Topography of the Indian Ocean. (Contours in kilometers.) Reproduced from chart prepared by T. E. Chase, Scripps Institution of Oceanography, IMR Technical Report Series TR 57, 1975. Original data provided by R. L. Fisher and F. J. Emmel.

temperature accuracy and possible inaccuracies introduced through the necessary assumptions required to convert the temperature data to equivalent sound speeds.

Three near-surface sound speed parameters were computed using the basic BT data set, i.e., the depth of the sonic layer (surface channel), the positive gradient within this layer, and the negative gradient below the layer. These features of the vertical sound-speed distribution are not dependent on temperature alone. Thus it was necessary to convert each temperature profile to an equivalent sound-speed profile through consideration of the effects of salinity and pressure. Because the sound speed provinces described earlier are considered to contain reasonably homogeneous sound speed characteristics, it can be assumed that salinity variations at standard depths within a province are small for each season. Standard deviations of salinity at standard depths from the hydrocast data verify this assumption. Therefore, the BT data were grouped by province/season and the mean salinity profiles were interpolated at 5-m intervals. Pressure was computed from depth (Ref. 10) and used with the associated salinity and temperature from each BT to compute an equivalent sound-speed profile at 5-m depth intervals by means of Del Grosso's equation (Table VIII of Ref. 11).

The sound speed in the surface layer is taken to be the value at the 5-m depth. The profile is scanned to locate the absolute maximum sound speed and the associated depth, and the gradient is computed for the sonic layer using this value and the 5-m sound speed. The negative gradient is computed over the depth interval from the sonic layer to each succeeding deeper observation and the below-layer gradient is chosen as the maximum gradient in the set of values. Below-layer gradient values are ignored for BTs extending less than 15 m deeper than the sonic layer depth and in situations where the depth range of the maximum gradient includes the deepest observation. Sonic-layer depths and the sonic-layer and below-layer gradient values were separately plotted and contoured for each season.

## **XBT DATA**

During the initial stages of BT data processing it became apparent that for certain seasons and locations data coverage was very weak or essentially non-existent. Hydrocast data cannot effectively be used to supplement the BT data because the computations of the near-surface parameters would be highly dependent on the relatively coarse standard depth spacing for hydrocasts. Attempts to contour the combined distribution of each parameter computed from the two separate data sources would produce artificial features in the display that depend on the relative distributions of the two sets of observations.

Fleet Numerical Weather Central (FNWC) maintains an XBT (expendable bathy-thermograph) data file that is equivalent to or more complete than any other single available data source. XBT data, though a measurement of temperature distribution basically similar to mechanical BT data, differ in digitization format in a manner that may cause the computation of gradients to vary systematically from the values obtained from BT data. Layer depth determination is not significantly affected by this difference in processing, and depths computed from these two sources should be consistent. Delays created by computer interface problems during the course of this study prevented an early access to the FNWC XBT data. A determination has not been made as to whether the gradient values derived from these two separate sources are members of the same statistical population and can be combined in single displays of gradient distributions. For purposes of this report the results derived from XBT data have been presented separately.

#### DISCUSSION OF RESULTS

This section presents results of the sound-speed data processing described in the previous section. Some recently acquired hydrocast data were not available to process for the sound-speed province definitions and typical profile selections, although these data were used in the bottom conjugate depth/depth excess computations and displays. Present plans call for an expansion of this analysis into the eastern Indian Ocean and possibly to 30°S. Current results will be modified as dictated by the new data and will be combined with the future analyses of the eastern waters to provide a single source of descriptive sound-speed information for the Indian Ocean.

The initial breakdown of the data sets into four monsoon-related seasons (Table 1) was made in an attempt to segregate the two monsoon periods and the two related periods of transition. The SW Monsoon is the dominant climatological feature of the western Indian Ocean. This period witnesses the greatest relative changes of sound-speed structure in the upper layers to depths of 200 m to 300 m. Unfortunately, for purposes of seasonal definition, the monsoon does not occur everywhere over the region simultaneously. The "burst" of the SW Monsoon occurs progressively later from the southwest to the northeast across the western Indian Ocean and is not continuous, but may change and vary, advance and withdraw. SW Monsoon beginning dates range from mid-April near Mombasa, Kenya, to early July at Karachi, Pakistan, in the northern Arabian Sea. The western sector may experience mean wind speeds of 30 knots and reports of 40-45 knots occur on daily charts. The Bay of Bengal experiences milder conditions than observed in the Arabian Sea, and the SW Monsoon period is shifted later in the year. The selected period of June through September for the SW Monsoon season is one compromise to provide a single set of four seasons for the entire Indian Ocean to 20°S. The southern extent of the effects of the two monsoons is limited to about 10°S. The December through February period for the NE Monsoon is a similar compromise. Parts of the NW Arabian Sea are still typically NE Monsoon during early March, although the month has been designated as transitional. The overall strength of this monsoon and its related effect on the surface layer (extending to less than 100 m) are much less than the SW Monsoon, and the choice of months is not as critical. The NE Monsoon is actually the normal tropical easterlies observed over much of the world at these latitudes. The SW Monsoon of the northwestern Indian Ocean, however, is unique on this scale and is a result of the effect produced by the surrounding continental land masses on the large-scale marine meteorological processes in this region.

The following sound-speed province data presentations (Appendix A), based on hydrocast data analysis, are ordered by geographic region roughly from north to south and are subdivided by season. The bottom conjugate depth/depth excess displays (Appendix B), also produced from hydrocast data, are presented by season for the entire western Indian Ocean. The surface parameter displays (Appendices C and D), based on BT data and XBT data, are also arranged by season.

#### SOUND SPEED PROVINCE SUMMARY

The provinces defined in this presentation (Fig. 3) have been selected to provide a comprehensive summary of vertical sound-speed characteristics for the western Indian Ocean



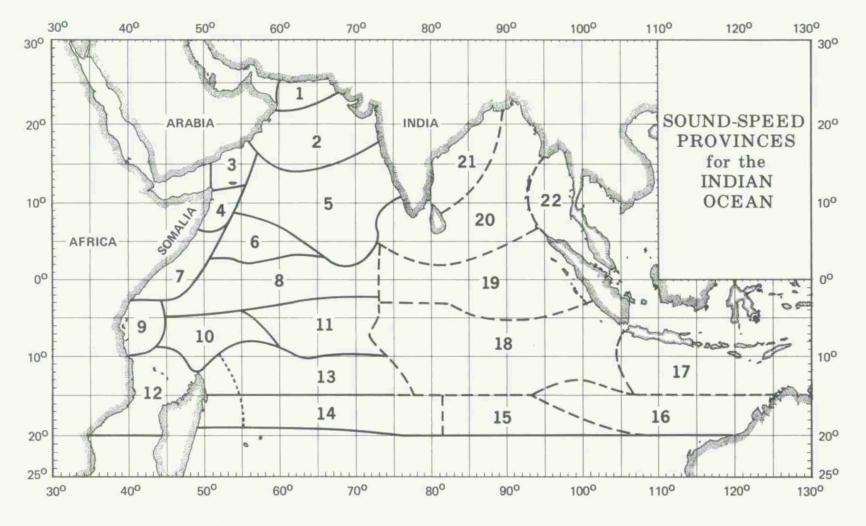


Figure 3. Sound speed provinces for the Indian Ocean. Analysis for western provinces (solid boundaries) presented in this report. Dotted boundary in western part of Provinces 13 and 14 indicates small variation in deep sound-speed structure. Preliminary province breakdown (dashed boundaries) for eastern Indian Ocean is subject to revision.

to 20°S for general application. These data, presented in atlas format, should serve only as a quick-look guide to general conditions for exercise planning or model studies. The province boundaries were chosen to provide a reasonable number of geographical areas that can each be realistically represented by a single sound-speed profile for each season. The procedure used to select representative typical profiles emphasized the acoustically significant characteristics of the subsurface vertical sound-speed distribution and placed less emphasis on the highly variable and complex structure in the near-surface layer above the thermocline. Conditions in the upper layer can be better displayed in contour format than by the use of representative vertical profiles. In most instances no clear water-mass boundary existed between profile types, and the data often indicated a gradual transition from one region to another. It was necessary to make subjective evaluations to place the final province boundaries. The choice of a particular profile to represent each province/season was most difficult to make in the more complicated regions of the western and southern Arabian Sea under influence of the Red Sea Water exiting from the Gulf of Aden.

Some variations of characteristics within the provinces and from month to month at a single location do exist. The summaries in this report should not be used when an accurate prediction for a specific location and short time frame is required. In this situation information should be obtained from a separate selection and processing of the proper raw data subset. A statistical summary for each province and season is presented in Appendix A to provide some measure of the variations in the data bases from which the typical profiles were selected.

The relationships between water mass distributions and sound-speed perturbations in the Indian Ocean north of 10°S have been comprehensively treated by Fenner and Bucca (Ref. 2). The vertical sound-speed structure below the surface layer is significantly influenced by the advective, diffusive, and mixing processes involving five identifiable water masses in the western Indian Ocean. Low-salinity cores from the south and east include the Subtropical Subsurface Water (400–750 m), the Antarctic Intermediate Water (700–800 m), and the Banda Intermediate Water (900–1100 m). Interaction of these low-salinity masses with the high-salinity Red Sea Water (500–1000 m) and the presence of the high-salinity Persian Gulf Water produce perturbations in the structure, particularly in the western and equatorial provinces (Provinces 3, 4, 6, 7, 8 and 9).

The Red Sea Water entering the Arabian Sea from the Gulf of Aden at depths near 700 m is the single most significant influence on the sound-speed structure in the western Indian Ocean. This high-salinity mass spreads through processes of lateral and vertical diffusion and slow lateral advection (Ref. 12) throughout much of the region between 20°N and 10°S. The primary effect of this water mass is to produce a mid-depth sound-speed maximum, thereby forcing the main sound channel axis to greater depths and creating a potential secondary channel above the high-salinity core. Diffusive mixing processes limit the extreme effect of this influence to the western provinces in the vicinity of the source where numerous minima and maxima result from Red Sea mixing. The vertical profiles in the region near the Gulf of Aden can be very complex in the upper 900 m. At locations more remote, the effects of the Red Sea Water is limited to creating a more broad and flattened channel structure. The southern extent of the Red Sea influence is generally limited to about 10°S in the western Indian Ocean. Waters south of this limit and east of Madagascar display a characteristic flattening of the profile that would seem to be related to the

low-salinity core of the Antarctic Intermediate Water. The region along the eastern slopes of Madagascar displays lower sound speeds at great depths than are observed at similar depths to the east, the result of a northward-flowing cold bottom layer of Antarctic origin.

Province 1 is strongly influenced by the high-salinity Persian Gulf Water in the upper layers, but lies north of the region of direct influence of Red Sea Water. The Persian Gulf Water entering from the Gulf of Oman creates a strong secondary channel in the 100-250 m layer in parts of Province I (see Appendix A). Too few data are available from Season I and Season 3 to adequately evaluate the distribution of this channel during the monsoon periods. However, the transition Season 2 data indicate the presence of a strong shallow channel located at depths between the warm surface layer and the Persian Gulf core. The channel is most evident in the Gulf of Oman and off Ra's al Hadd. Higher sound speeds in the thermocline from 200 m to 600 m are observed in Province 1 than in other provinces remote from the source of Persian Gulf water. Province 2 lies generally south of the region of direct influence of Persian Gulf Water and north of the region of strong Red Sea Water influence at greater depths. The northern zone of Province 2 does experience some minor inversions in the upper layers occurring in the northeast waters during the SW Monsoon and more to the northwest during the NE Monsoon as the current patterns tend to exert some influence on the spread of Persian Gulf Water away from the Gulf of Oman. A hint of the presence of the Red Sea core is indicated on the profiles in the 600 m to 900 m depth range by a layer of reduced sound-speed gradient.

Complex structures in the upper layers characterize Provinces 3 and 4 as evidenced by the relatively high standard deviations of sound speed at shallow depths. Red Sea Water dominates the structure creating one or more intermediate maxima from 400 m to 1000 m. Data samples for Seasons 3 and 4 (during and following the SW Monsoon) display the greatest variability for both provinces. The most complexity generally occurs near Socotra. The lowest surface sound speeds are observed during Season 3, the normal northern summer. This situation in Provinces 3 and 4 results primarily from the surface advection of cold upwelled water off Somalia and Arabia. A careful examination of individual data indicates that the first 10 days of March are still influenced by the NE Monsoon, and the placement of March in Season 2 for Provinces 3 and 4 is a compromise. The complex max-min structure caused by mixing of Red Sea Water is less apparent in Province 5 than in Provinces 3 and 4 to the west; however, the thick high-speed layer intersecting the thermocline forces the sound channel axis deeper than it would be in the absence of Red Sea Water. Season 3 seems to experience more small-scale complexities than other seasons and the effects can extend across the Arabian Sea to the west Indian coast.

Province 6 lies in the path of Red Sea Water flow to the southeast at a core depth of 600–700 m. Strong secondary channel formation and a deep sound channel axis of 1500 m to 1750 m characterize this area. Seasonal variations in the upper layers are reduced in Province 6 because surface heat exchange is more constant at low latitudes. Coastal upwelling off Somalia and subsequent northeast advection of the cold surface waters do not exert a strong influence on this area during the SW Monsoon. Red Sea Water flowing south along the coast of Africa strongly influences the structure in the upper 1000 m of Province 7. Many secondary channels are observed above and occasionally below the core depth of 600 m. A deep sound channel axis near 1750 m is also characteristic. Greatest standard deviations of sound speed in the upper layers are observed during Season 4 and the following NE Monsoon season, when surface circulation is directed into this area from the north.

Province 8 experiences a general weakening of the sound-speed gradient above the axis as a result of the presence of a thicker and less concentrated layer of Red Sea Water at this distance from the Gulf of Aden. A strong secondary channel is less prominent than in Province 7 to the north, and the main sound channel axis is slightly more shallow. Although the presence of the Red Sea Water is still apparent on the profiles for Province 9, mixing has reduced the strength of the high-salinity layer and absolute sound speeds are lower. The effect of the high-salinity mass can be observed at depths below 1000 m as the core depth increases to the south along Africa.

The influence of the Red Sea Water is greatly reduced in Provinces 10 and 11 lying in a transition zone between 6°S and 15°S, where mixing with low-salinity Antarctic Intermediate Water occurs. Only a mild perturbation near 1200 m depth is suggested on the profiles for Province 10. The general effect is to create a very thick layer of nearly constant sound speed above the sound channel axis. Sound speeds at depths below 3000 m appear to be slightly higher in Province 11 than in Province 10 to the west. The profiles for Province 12 provide little indication of the presence of identifiable Red Sea Water. The thermocline is relatively smooth and is characteristically less steep with increasing latitude. The sound channel axis is more shallow and the speed is lower in the absence of the high-salinity Red Sea layer.

Provinces 13 and 14 lie south of the maximum extent of Red Sea influence; however, the characteristic flattening of the profile in the vicinity of the axis is observed. Comparisons with the profiles from Province 12 at similar latitudes suggest that the perturbation observed in Provinces 13 and 14 may be the result of a layer of low sound speed in the depth zone between 700 m and 1000 m. This causes a shallow channel axis with a relatively low-gradient sound-speed layer below. The core depth of the low-salinity Antarctic Intermediate Water lies near 800–900 m, and the presence of this water mass may contribute to the observed low-sound-speed layer. The western waters of Provinces 13 and 14 along the east slope of Madagascar (see Fig. 3) exhibit lower sound speeds at 4000 m by as much as 1 m/sec when compared to the waters to the east. A cold deep water originating in the Antarctic circumpolar current with a temperature of only 1.1°C at 4000 m flows northward along the eastern slope of Madagascar (Ref. 13), causing the anomalously low sound speeds. The shallower portions of each profile from this coastal zone resemble the conditions throughout the remainder of the province, and thus a new province was not defined.

#### BOTTOM CONJUGATE DEPTH AND CRITICAL DEPTH

The display of the distribution of critical depths for a particular ocean region can be very useful in an operational situation in which the user is able to determine his local bottom depth accurately and compute the depth excess. For planning purposes, the critical depth display must be used in conjunction with an accurate bathymetric map to determine depth excess and the reliability of convergence zone propagation. In the case of the western Indian Ocean, a comparison of critical depths and associated bathymetry reveals that most of the region is bottom limited throughout the year with the exception of the central Somali Basin, where bottom limiting occurs only during Season 2. Thus a critical depth chart is of little practical value for most of the western Indian Ocean. It becomes important in this situation to know the depth below which sound energy from a subsurface sound

source ceases to be bottom limited. This depth has been defined earlier as the bottom conjugate depth. This parameter, or the complementary depth excess in the restricted areas where it occurs, has been chosen to represent the significant features of the sound-speed structure produced by variations in the depth of the bottom. These parameters, contoured and displayed for the four seasons in the western Indian Ocean, are presented in Appendix B.

Because bottom conjugate depth and depth excess are functions of near-surface structure it is necessary to compute and display these parameters on a seasonal basis. The concept of spatially contouring a time-dependent variable can be defended only if the application recognizes the useful limits of this type of presentation. The charts should be used as a guide to the magnitudes of the bottom conjugate depth and as a relative measure of the difference from region to region. Reliable bathymetric contours are based on many more depth observations than the number of hydrocasts available for the bottom conjugate depth computations. Comparisons to bathymetry should be made and regions of conflict should be recognized as potential errors in the bottom conjugate depth display. Banks and ridges may locally produce much deeper bottom conjugate depths than indicated by the contours. Small and narrow trenches may have significant depth excess not identified on the charts.

The contours of bottom conjugate depth and depth excess presented in Appendix B correlate strongly with available bottom depth contours. The bottom depth is much more variable than the upper layer sound speed structure and, therefore, produces most of the complexity seen in the bottom conjugate contours. The greatest values of bottom conjugate depth occur along the continental slope margins of the major basins, where contouring has been carried to 1200 m to 1400 m in some cases. In open waters the greatest values are associated with the major ridges and banks. The Carlsberg Ridge/Sheba Ridge system extending across the southern Arabian Basin creates large regions of bottom conjugate depths below 200 m and smaller areas with much deeper values. In the southern hemisphere the Seychelles Bank, Mascarene Ridge, and associated banks to the south create a region of deep conjugate depths. The Chagos Bank in the east and its southward extension also create areas with large conjugate depth values. Essentially all depth excess is restricted to the Somali Basin region extending along the African coast from 10°N to 5°S. Greatest depth excess is observed in the northwestern portion of the basin. If, for example, an operationally useful requirement of 400 m depth excess is specified, proper conditions for convergence-zone propagation are limited to portions of the northern Somali Basin during Season 3.

Season 1, the NE Monsoon period, is moderately favorable to convergence zone propagation in the Somali Basin with depth excess values exceeding 300 m in the deeper waters between the Chain Ridge and Africa. Cool near-surface waters create low maximum sound speeds and provide more depth excess. The bottom conjugate depth can be dependent not only on the heating/cooling cycle in the upper layers, but on the shifting current dynamics resulting from the two diverse monsoon circulation patterns. Conjugate depths below 200 m relate to the deeper more stable sound speed structure of the lower thermocline and display less seasonal correlations. Apparent seasonal differences in the bottom conjugate depth patterns are caused in part by data coverage variations. Data coverage is weak throughout the central Arabian Basin and Carlsberg Ridge during Season 1, and the contours serve only as magnitude indicators. Season 2 has the greatest near-surface temperatures and related maximum sound speeds. Depth excess is replaced in the Somali Basin during this period by a very shallow bottom conjugate depth.

Season 3 is the normal summer period in the northern hemisphere and the time when depth excess would be least likely to occur. However, the direct and indirect cooling influence of the strong SW Monsoon completely reverses the situation by creating the coldest near-surface temperatures in the Somali Basin and over much of the Arabian Sea. Cold-water upwelling occurs off Somalia and circulates in a cold eddy that forms offshore. Near-surface sound speeds are reduced sufficiently to create depth excess of over 400 m where none existed during the prior season. The Carlsberg Ridge and Chain Ridge prevent depth excesses in the adjacent areas where some cold water is advected. Over the central Arabian Sea cold surface temperatures are caused by excessive evaporation and reduced insolation (Ref. 1), however, the effect is restricted to the surface layer and should not greatly influence the bottom conjugate depth values. Actually, the central Arabian Basin contours indicate somewhat greater values for the bottom conjugate depths. This may reflect the deepening of the central basin surface layer resulting from the large-scale anticyclonic circulation pattern of the Arabian Sea during the SW Monsoon. The increase in depth excess observed in the northern Somali Basin extends into the southern basin during Season 3 and exceeds 100 m.

Season 4 also experiences depth excess of over 100 m throughout the southern Somali Basin. In the northern basin, depth excess decreases significantly during Season 4, when the local cooling effect of the SW Monsoon is removed. A few individual observations of depth excess over 200 m occur in the Somali Basin west of the Seychelles during Season 4 and Season 1. It cannot be determined from the data whether this is a true seasonal feature or isolated observations resulting from a particular combination of bottom topography and hydrocast locations.

## NEAR-SURFACE SOUND SPEED STRUCTURE

Sonic layer depth (Fig. 1), in-layer sound-speed gradient and below-layer gradient have been selected to provide information on near-surface structure. Each parameter is presented in contour format by season for the western Indian Ocean in Appendices C and D. The primary data for this analysis are contained in the NODC mechanical BT data file available at NUC. The data for the most part came from observations made during the late 1950's and early 1960's in the Indian Ocean. Temperature data were converted to equivalent sound speeds and the parameters computed as described earlier. The distribution and complexity of the displayed contours based on data from several years is highly dependent on the density and distribution of observations and their relation to the actual structure of the surface produced by prevailing wind mixing and circulation patterns. It is quite clear that small-scale features indicated on the contoured surfaces should not be accepted as true or permanent features of the distribution. The true surface is continuously changing and the actual complexity of the surface at any instant in time is probably greater than indicated by the contours.

The contour maps can be valuable if the information derived from these maps is limited to:

1. General range of values of the variable to be expected for the region and season, and as an

2. approximation of large-scale distribution patterns, i.e., areas where relative values are low and areas where they may be expected to be greater.

Another caution should be mentioned in connection with the below-layer gradient computation. This parameter in some instances may have been computed for a minimum depth interval of only 5 m. This small interval might not be meaningful for low-frequency application, and the effective below-layer gradient could be somewhat less in such cases. Large regions with essentially no BT data coverage are indicated on the maps for each season. The most serious data holidays occur in the south-central and southeastern Arabian Sea during Season 1, 3 and 4. Seasons 1 and 4 are also seriously deficient in the eastern part of the southern hemisphere section and in the southern Somali Basin.

The surface circulation strongly influences the surface-layer structure and is, in turn, under direct influence of the local wind system. The SW Monsoon during Season 3 (June–September) blows over the Arabian Sea with 20-knot winds and reaches 30 knots or more off Somalia and Arabia. The surface layer is strongly influenced during the SW Monsoon by the monsoon-produced circulation cells that migrate across the Arabian Sea (Ref. 14). These cells or eddies affect the layer depth dynamically and also influence the layer gradient and the below-layer gradient. The accumulation of surface water at the center of an anticyclonic eddy will tend to deepen the layer, lower the in-layer gradient, and increase the below-layer gradient. The NE Monsoon (Season 1, December–February), in contrast to the strong SW Monsoon, is weakly developed, with wind speeds rarely exceeding about 15 knots. Allowing for the greater density of observations during Season 3, the analysis suggests that fewer spatial complexities in the layer depth and gradient structure occur during Season 1, as would be expected from wind-strength comparisons. The SW Monsoon period also experiences greater fluctuations in surface-layer heat exchange that further contribute to the variations in near-surface sound-speed structure observed during Season 3.

During Season 1, the NE Monsoon, the layer depths range from 30 m to 120 m in the northern hemisphere. Greatest depths are observed in the central waters and off the coast of Iran in the Gulf of Oman. In the south the layer shallows to less than 20 m during the southern summer warming period. Data coverage is very weak during Season 1 in the southern hemisphere. Reasonable negative correlation between in-layer gradient and layer depth is indicated by lower gradient values in regions with deep layers. The thermocline weakens in high southern latitudes and produces smaller below-layer gradients with increasing latitude.

Layer depths decrease in the northern hemisphere with decreasing winds and increasing solar heating during Season 2 following the NE Monsoon. Greatest layer depths during this period are observed in the north-central and western Arabian Sea. Layer deepening occurs south of 10°S as the southern hemisphere winter season approaches. The in-layer gradient increases in the north-central region and decreases in the extreme northern waters of the Arabian Sea from Season 1 to Season 2.

The onset of the SW Monsoon during Season 3 increases the layer depth in the northern hemisphere through wind mixing and indirectly through processes of surface cooling by evaporation. The layer deepens significantly just off the coast in the region of Somali coastal upwelling, where depths to 120 m are observed. The layer shallows noticeably along the coast just north of the upwelling region, where the strong current breaks

away from the coast. A branch of the current returns to the southwest, and the presence of oppositely flowing currents enhances the large variations of layer depths in the western Somali Basin.

A large region with depths exceeding 80 m is formed in the western and central sections of the Arabian Sea. A deep layer is not observed in the area of Arabian coastal upwelling, but the data coverage is very weak and inconclusive. Recent studies (Ref. 14) indicate that the general west-to-east circulation across the Arabian Sea during the SW Monsoon actually consists of a series of cyclonic and anticyclonic eddies. These eddies, obscured by long-term averaging in the figures presented here, would produce a more complex structure in the layer depth and below-layer gradient contour at any instant in time. Deeper and warmer surface layers are associated with anticyclonic eddies (clockwise in the northern hemisphere), and cooler shallower layers are produced by cyclonic circulation. The layer also deepens in the southern hemisphere during Season 3. Near the equator the SW Monsoon probably influences the layer depth, while at higher southern latitudes the normal winter processes of cooling and mixing are effective in increasing the layer depth. The in-layer gradient is moderately uniform over much of the Arabian Sea during the SW Monsoon. Largest gradients are observed in the region of shallower layers along India and the southern Gulf of Oman. Increased gradients are also observed in the eastern equatorial waters and the southeastern region.

Significant increases in the below-layer gradient are observed in the southwest to northeast zone across the Arabian Sea under the strongest direct influence of the SW Monsoon. The below-layer gradient correlates positively with the increase in layer depth and is further enhanced in the regions of upwelling by upward movement in the thermocline layer. High gradient values below the layer are also a normal situation in south equatorial waters, where large-scale upward movement of the upper layers of the main oceanic thermocline crowds the shallower isotherms (Ref. 1). Gradients exceeding 7 m/sec/10 m are observed in the 5°S to 10°S zone during Season 3.

Season 4 is a relatively short period of transition following the SW Monsoon. BT data coverage is weak, with little or no information in the 10°N to 5°S zone and the far southeast waters. The deep layers of the north-central Arabian Sea have disappeared; however, some remnants of eddy-produced deep layers are still evident in the Somali Basin. Southern hemisphere spring warming is beginning to decrease the layer depths south of the equator during Season 4. The in-layer gradient is relatively weak in the north except for a few localized features. The southern waters exhibit gradients similar to Season 3. High values of below-layer gradient are observed off Arabia in a region of shallow surface layers. In the southern hemisphere the below-layer gradient is decreasing with the shallowing of the surface layer.

#### COMPARISON OF BT AND XBT RESULTS

XBT data, obtained only recently at NUC, have been processed to obtain surfacelayer information and are displayed separately from the mechanical BT data in Appendix D. Because a different digitization procedure is used for XBT data and because a quality comparison of the two types of instruments has not been accomplished, the data sets have been treated separately. A comparison of the displayed information for each data source by season indicates a large degree of compatibility within the limits of usage discussed earlier for the mechanical BT data displays.

During Season 1, a comparison of layer depth charts indicates reasonable similarities in the central deep waters. Differences are observed along Arabia and off Pakistan, where the XBT data display deeper layers, and in the Gulf of Oman, where shallower XBT layers are indicated. Large in-layer gradients correspond to somewhat shallower layer depths in the northern Somali Basin for the XBT data. The tongue of low below-layer gradient water indicated in the BT data for Season 1 extending east from the Gulf of Aden does not appear in the XBT counterpart. The XBT data density is far greater than the BT density in this zone and the patterns may be more reliable on the XBT chart. Large data voids in the central and eastern Arabian Basin occur in both data sets. Better XBT data coverage in the southern hemisphere provides much greater detail in the below-layer gradient distribution. A large area with strong gradients observed in the southern Somali Basin on the XBT chart is completely lacking on the BT chart, in which no data were available for this region.

Layer-depth magnitudes on the BT and XBT charts are similar for Season 2 although the contour patterns are quite different. In-layer gradient values range from less than 0.1 m/sec/10 m to greater than 0.2 m/sec/10 m for both data sets, with the exception of a small area off India, where gradients exceed 0.3 m/sec/10 m on the BT chart. High below-layer gradients are observed in the northern Arabian Sea in the XBT data that are not indicated on the BT chart. The differences are caused in part by the lack of BT data in the Gulf of Oman and off northern India. A similar strong gradient area is observed during Season 2 and Season 1 in the southern Somali Basin on the XBT charts. BT data coverage is too weak for comparison in both instances.

Eddy-produced deep layers extending along the Somali coastal region and following the strong Somali Current offshore are observed on the BT chart and the XBT chart for Season 3, the SW Monsoon period. The layer appears shallower in the Somali Basin and the north-central Arabian Sea on the XBT chart. The in-layer gradient magnitudes are similar on both charts, with little variation indicated over most of the region. A zone of higher gradient water extending eastward from northern Madagascar is indicated on both charts. Complex detail is exhibited on both below-layer gradient charts for the SW Monsoon period. More XBT data were available off Arabia and in the extreme northern waters of the Arabian Sea. High-gradient areas appear to be associated with deep offshore layers along the Somali coast and shallow layers off Arabia. Shallow layers also appear to correlate with large below-layer gradients in high northern latitudes. The area with large gradients in the southern Somali Basin observed on the XBT charts is also indicated on the BT chart for Season 3.

The very shallow layer in the northwestern Indian Ocean following the SW Monsoon is indicated on both charts for Season 4. Weak BT and XBT data coverage in the southern hemisphere during this period make comparisons difficult. The deepening of the layer south of 10°S and east of Madagascar is indicated on both charts. High below-layer gradients appear in the far northwest waters based on BT and XBT data. The zone with large gradients south of the equator, though less steep than other seasons, is indicated on the XBT chart and suggested on the BT-derived contours. Large areas with no data greatly limit the comparison of BT- and XBT-computed parameters for Season 4.

#### SUMMARY AND PROJECTIONS

This report presents results of the analysis of sound-speed information for the Indian Ocean west of 75°E longitude and north of 20°S latitude. The limits to the application of the data displays should be re-emphasized. General conclusions regarding the large-scale distribution of parameters, the expected ranges of values, and the nature of seasonal variations can be inferred. Historical summarized presentations cannot be used to predict actual parameter values for a specific location and time, and at best are restricted to providing a basis for estimating conditions with the highest probability of occurrence based on the data set.

It is recommended that future efforts produce similar data presentations for the eastern Indian Ocean, with a possible extension of coverage to 30°S latitude. Further study may result in the combining of the near-surface parameters computed from BT and XBT data into a single set of displays, thereby minimizing the areas of weak data coverage. The distribution of the secondary acoustic channel created above the Red Sea core in the vicinity of the Gulf of Aden requires further study. Depth excess in the western Indian Ocean is restricted to the deeper parts of the Somali Basin and is seasonally variable. A look-up table to determine bottom sound speed as a function of bottom depth for the basin would allow an operator with a knowledge of his local bottom depth and sensor or cruising depth sound speed to estimate the probability of convergence-zone propagation for his situation. The usefulness of this type of data presentation should be evaluated for the Somali Basin and potential depth excess areas in the eastern Indian Ocean.

Better data coverage is needed in all parts of the Indian Ocean, particularly in the areas of weak data coverage identified on the display maps. Most of the hydrocast and BT observations were made during the few years of the IIOE in the early 1960's. Little is known of the long-term trends or the effects on the sound-speed structure of year-to-year variations in the strength of the monsoons. XBT information is current and acquisition is continuing; however, very few recent hydrocast or deep STD data are available.

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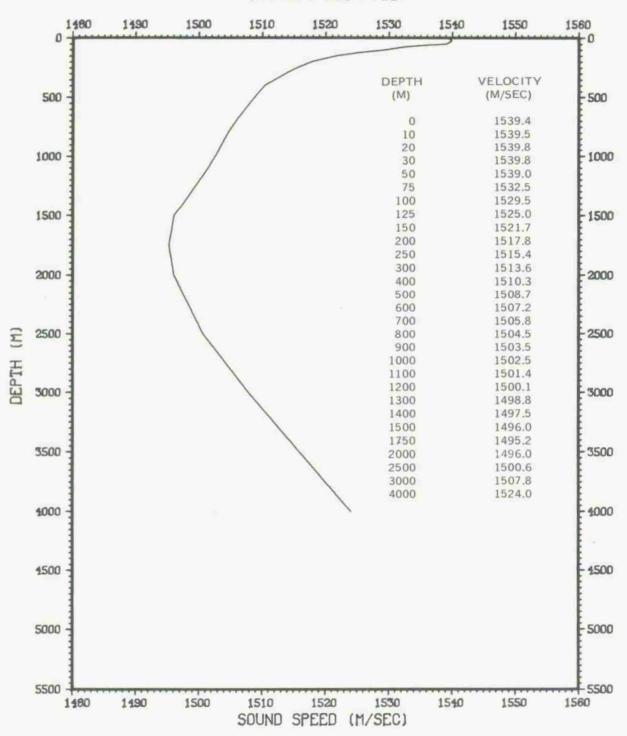


APPENDIX A: SOUND-SPEED PROVINCE PROFILES AND STATISTICAL SUMMARIES ARRANGED GEOGRAPHICALLY FROM NORTH TO SOUTH

# PROVINCE 1 DEC - FEB

		TEMP	ERATUR	E (C)			SA	LINITY	(PPT)			VELOCITY (M/SEC)						
DEPTH										0.00		M A M		M. F. J.	491 420			
( M )	MAX	MEAN	MIN	ST DEV	NUM	MAX	MEAN	HIN	ST DEV	NUM		HAX	MEAN	MIN	ST DEV	NUM		
0 •	26.4	25.7	24.3	.8672	5	36.9	36.4	36.2	. 2702	5		1540.1	1538.1	1534.5	2.2233	5		
10	26.3	25.7	24.3	. 8444	5 ••	36.9	36 . 4	36.2	. 2702	5		1540.0	1538.1	1534.7	2.1385	5		
20 .	26.3	25.7	24.2	.8961	5	36.9	36.5	36.3	. 2510	5		1540.2	1538.3	1534.7	2.2510	5		
30 *	26.3	25.6	23.9	1.0198	5 * •	36.9	36.4	36.2	.2702	5		1540.4	1538.3	1534.2	2.5084	5		
50 4	26.1	24.8	23.4	1 . 2582	5 .	36.5	36.3	36.1	.1483	5		1539.8	1536.7	1533.3	2.9390	5		
75 •	 23.9	22.7	20.0	1.5662	5	36.4	36.2	36.0	.1517	5		1534.7	1531.8	1524.5	4.1662	5		
100 .	23.0	21.6	18.8	1.6532	5	36.4	36.1	36.0	.1643	5		1533.3	1529.3	1521.7	4.4820	5		
125 *	21.7	20.3	18.4	1.2153	5 **	36.3	35.9	35.7	.2387	5		1529.9	1526.0	1521.2	3.1972	5		
150 •	19.5	19.0	17.9	.6693	5	36.4	35.8	35,6	.3209	5		1523.9	1522.7	1520.5	1.5297	5		
200	 18.0	17.4	16.9	. 4301	5 ••	36.4	35.9	35.6	.3033	5		1521.0	1519.1	1517.8	1.2582	5		
250 •	16.1	15.9	15.4	. 2775	5	36.2	35.9	35.7	.1789	5		1515.9	1515.4	1514.2	.6804	5		
300 .	15.7	15.0	14.1	.5891	5	36.0	35.9	35.8	.0837	5		1515.6	1513.3	1510.8	1.7487	5		
400	13.8	13.4	12.6	• 4775	5	35.9	35.8	35.7	.0894	5		1511.3	1509.6	1507.0	1.6784	5		
500 *	12.7	12.4	11.7	. 4761	4 * •	35.7	35.6	35.6	.0577	4	• •	1508.7	1507.8	1505.5	1.5449	4		
600 .	11.8	11.5	10.8	• 4717	4 * •	35.6	35.5	35.5	.0577	4		1507.4	1506.2	1504.0	1.5578	4		
700 •	11.1	10.6	10.0	. 4796	4 9 0	35.6	35.5	35.4	.0816	4		1506.3	1504.9	1502.7	1.5924	4		
800	10.4	9.9	9.3	. 4655	4	35.5	35.4	35.4	.0577	4	• •	1505.4	1503.9	1501.4	1.7270	4		
900 *	9.7	9.2	8.5	.5196	4	35.5	35.4	35.3	.0957		• •	1504.7	1503.0	1500.3	1.8786	4		
1000 .	9.1	8.6	7 . 8	.5500	4	35.4	35.3	35.3	.0577	4		1503.7	1502.0	1499.2	1.9442	- 44		
1100 *	8.4	7.9	7 . 2	.5033	4	35.3	35.2	35.2	.0577		• •	1502.7	1501.0	1498.2	1.9476	4		
1200 •	7.6	7.2	6.5	. 4717	4	35.3	35.2	35.1	.0957			1501.5	1499.8	1497.3	1.7877	4		
1300 •	6.9	6.5	6.0	.3742	4	35.2	35.1	35.1	.0500	4	• •	1500.1	1498.6	1496.6	1.4660	4		
1400 •	6 . 1	5.8	5 . 4	. 2944	4	35.1	35.0	35.0	.0577	4		1498.6	1497.5	1496.0	1 + 1 1 1 7	4		
1500 .	5.3	5.1	4 . 9	. 1915	4	35.1	35.0	34.9	.0957	- 4		1497.0	1496.3	1495.5	.7234	4		
1750 .	3.9	3.8	3.8	.0707	2	35.0	34.9	34.9	.0707	2	0 0	1495.5	1495.2	1495.0	.3536	2		
2000 .	2.9	2.9	2.9	.0000	1 **	35.0	35.0	35.0	.0000	1	• •	1495.7	1495.7	1495.7	.0000	1		
2500 .	2.2	2.2	2.2	.0000	1	34.8	34.8	34.8	.0000	1		1500.7	1500.7	1500.7	.0000	1		
3000 .	1.9	1.9	1.9	.0000	1 **	34.8	34.8	34.8	.0000	1	• •	1508.1	1508.1	1508.1	.0000	1		

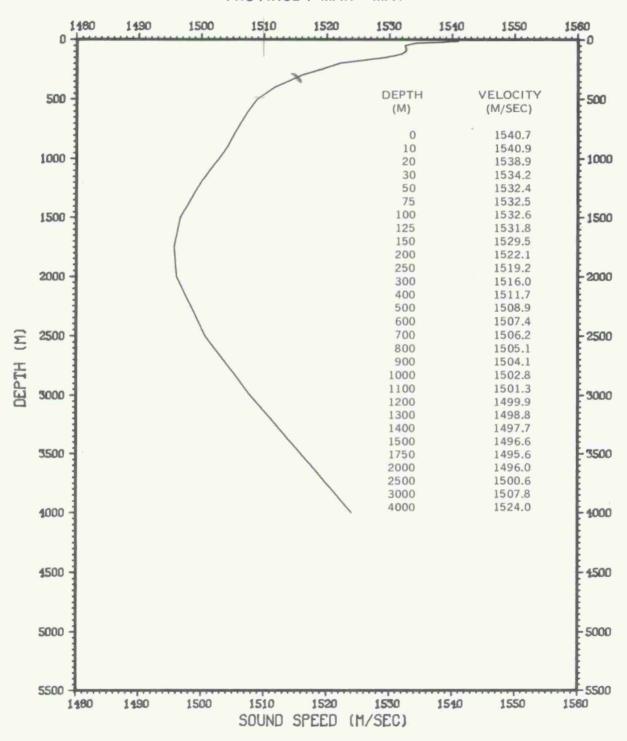
PROVINCE 1 DEC - FEB



# PROVINCE 1 MAR - MAY

			TEMP	ERATUR	F (C)				SA	LINITY	(PPT)		VELOCITY (M/SEC)						
DEPTH		мах	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUH		MAX	MEAN	MIN	ST DEV	NUM	
		29.5	26.2	23.8	1.7002	49	• •	36.7	36.5	36,2	.1204	49	• •	1546.7	1539.2	1533.7	3.8747	49	
0 4		29.1	26.0	23.8	1.5724	49		36.7	36.5	36.2	.1165	49		1546.0		1532.8	2.6948	49	
10		28.3	25.2	23.4	1.1523	49		36.7	36.4	36.1	.1099	4.9		1544.4	1537.3	1531.5	2.4393	49	
- 0	•	27.8	24.4	22.8	1.0202	49		36.7	36 . 4	36.1	.1231	49		1543.5	1535.4	1527.9	2.0059	49	
30	•	25.8	23.4	21.3	.8069	49		36.6	36.4	36.0	. 1262	49		1539.1	1533.3	1524.2	2.6422	49	
30		24.6	22.7	19.9	.9913	49		36.5	36.3	35,9	.1418	49		1536.7	1532.0	1520.3	3.4124	49	
7 4		23.6	22.0	18.4	1 . 2522	49		36.5	36.3	35.8	.1688	49		1534.7	1530.5	1521.1	3,6106	49	
		23.5	21.2	18.5	1.3138	49		36.4	36.2	35.8	.1504	49		1534.7	1528.7	1520.9	3.4480	49	
		22.6	20.3	18.3	1.2389	49		36.5	36.1	35,7	. 1574	49		1532.8	1526.7	1519.3	1.9061	49	
150		20.5	18.5	17.5	.6549	49		36.7	36.1	35.8	. 2041	49		1528.1	1522.5	1515.2	1.7047	48	
200		18.3	17.1	15.8	.5555	48		36.7	36.2	35.9	. 1543	48		1522.9	1519.4	1513.2	2.0861	47	
250		17.6	15.8	14.9	.6403	47		36.4	36.1	35.9	.1078	47		1521.9	1516.4	1508.4	1.4499	37	
300		15.1	13.9	13.0	.4160	37	0.0	36.1	35.9	35.8	.0727	37		1515.8	1511.5		1.0021	36	
400			12.6	12.0	.2858	36		35.9	35.8	35.7	.0560	36		1511.5	1508.7	1506.5	8580	36	
200	• •	13.4		11-1	.2395	36		35.8	35.7	35.6	.0558	36		1509.2	1507.1	1504.8	.7610	36	
4 - 0	• •	12.3	110.9	10.5	.2011	36		35.7	35.6	35.5	.0465	36		1507.2	1505.9	1504.3	.7709	35	
	• •	11.3	10.2	9.7	. 2059	35		35.6	35.5	35.4	.0404	35		1506.3	1504.9	1503.2	.7931	35	
800		10.6	9.5	9.0	.2089	35		35.5	35.5	35.4	.0490	35		1505.4	1503.8	1502.2		33	
900		9.9		8 . 4	. 2008	33		35.4	35 . 4	35.3	.0292	33		1504.1	1502.7	1501.4	.7677	33	
		9.1	8.7	7.6	.2076	33		35.4	35.3	35.2	.0508	3 3		1503.1	1501.5	1500.0		31	
	• •	8.4		6.6	. 2382	31		35.3	35.2	35.1	.0570	31		1501.8	1500.3	1497.6	.9543	3 4	
		7.7	7 . 3		. 2557	29		35.2	35.2	35.1	.0471	29		1500.5	1499.0	1495.7	1.0530	27	
- 000		6.9	6.6	5.8	.3000	27		35.2	35 • 1	35.0	.0517	27		1499.5	1497.9	1494.2	1.2388	- 25	
		6.3	5.9	5.0	.3205	25		35.1	35.0	35.0	.0510	25		1498.8	1496.9	1493.3	1.3852	21	
- 0 0 0	• •	5.7	5.2	4.4		21		35.0	34.9	34.9	.0402	21		1496.9	1495.6	1493.3	1.0457	19	
		4.2	4.0	3.4	. 2462	19		34.9	34.8	34.8	.0513	19		1497.1	1496.0	1494.6	.6654		
2000		3.3	3.0	2.7	-1611	10		34.5	34.8	34.8	.0316	10		1501.2	1500.6	1500.1	. 3213	10	
2500		2.3	2.1	2.0	10850		•	34.8	34.7	34.7	.0548	5		1508.1	1507.7	1507.4	.2967	2	
3000		1.9	1 . 8	1 . 7	.0707	2		37,0	3 1 4										

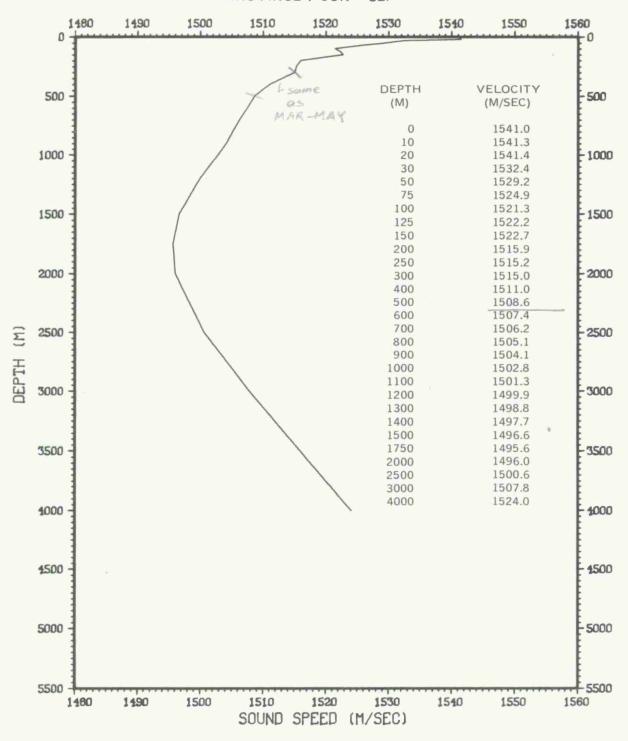
PROVINCE 1 MAR - MAY



# PROVINCE 1 JUN - SEP

			TEMP	ERATUR	E (C)				5 A	LINITY	(PPT)		VELOCITY (M/SEC)							
- DEPTH		AX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		
0 •	. 25	. 1	27.2	25.1	1.0991		• •	36.8	36.2	35.0	.6282	4	• •	1543.7	1541.1	1536.5	2.6190	6		
10 •			27.5		. 9893	_			36.5	36.2	.2317			1544.7	1542.2		2.2784	6		
20 •	. 28	3 . 3	27.2	25.0	1.1409	6		36.6	36.4	36.1	.1722	6		1544.3	1541.7	1536.8	2.5905	6		
30 •	• 27	. 3	24.8	23.3	1.6391	6		36.6	36.2	35.7	. 3445	6		1542.4	1536.2	1532.4	4.2447	6		
50 •	. 23	1.5	22.1	21.6	.6969	6		36.4	35.9	35.5	. 2944	6		1533.6	1529.6	1528.3	1.9793	6		
75 •	. 22	. 3	20.8	19.7	1 . 1250	6		36.2	35.8	35.6	. 2251	6		1530.9	1526.5	1523.5	3.2102	6		
100 •	. 20	. 7	19.5	19.0	.7441	6		35.9	35.6	35.3	. 2345	6		1526.3	1523 . 1	1521.3	2.0508	6		
125 •	. 19	. 7	18.9	18.6	.4167	6		36.1	35.9	35.5	.2137	6		1523.8	1522.1	1521.1	.9239	6		
150 •	. 18	. 8	18.3	17.4	.5468	6		36.3	36.0	35.4	. 3386	6		1522.7	1521.2	1518.4	1.6162	6		
200 •	. 17	. 8	16.9	16.3	.5441	6		36.2	36.0	35.7	.1751	6		1520.1	1517.8	1515.9	1.5362	6		
250 •	. 16	. 5	15.9	15.6	.3975	5		36.3	36 . 1	35.9	.1517				1515.8	1514.6	1.2814	5		
300 •	• 15	. 8	15.1	14.2	.8185	3		36.4	36.2	35.9	. 2887	3		1516.7	1514.2	1510.9	2.9816	3		

PROVINCE 1 JUN - SEP

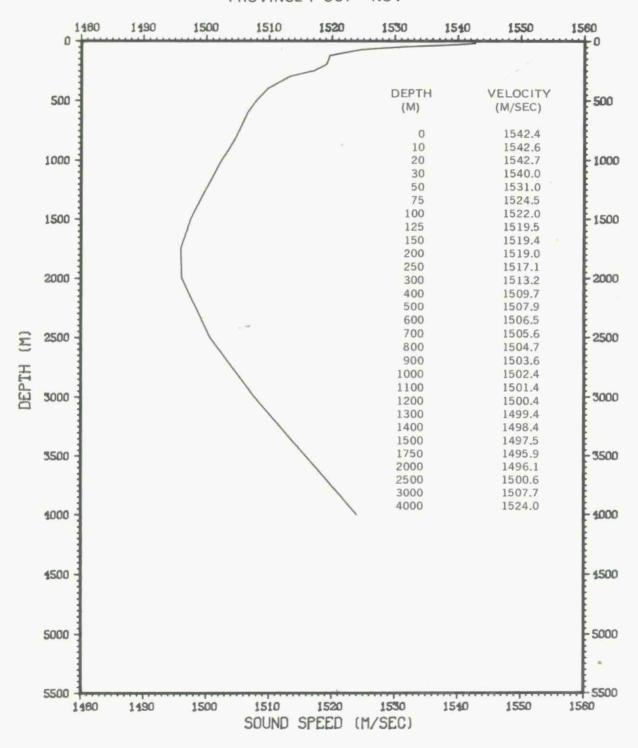


# PROVINCE 1 OCT - NOV

Takan makan ing makan salah sa

			TEMP	ERATUR	E (C)			SA	LINITY	(PPT)			VELOCITY (M/SEC)					
DEPTH																		
{ M }		MAX	HEAN	MIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM	
0		28.8	27.4	26.1	.7322	21 **	37.0	36.5	36.1	. 2481	21		1545.5	1541.8	1538.7	1.6334	21	
10		28.2	27.0	25.7	.7261	21 **	37.0	36.4	35.9	. 2594	21		1544.1	1541.1	1537.8	1.7043	21	
20		28.2	26.5	23.7	1.2338	21 **	37.0	36.4	35.8	.2851	21		1544.3	1540.1	1533.0	2.9613	21	
30		27.8	25.6	21.5	1.6483	21 00	37.0	36.3	35.6	. 3145	21		1543.2	1538.1	1527.4	4.1034	21	
50		26.9	23.0	20 - 1	1.5411	21 **	36.6	36.1	35.6	. 2556	21		1541.8	1532.1	1524.2	3.9968	21	
75		23.7	21.4	19.6	1.1367	21 **	36.5	36.1	35.8	.1640	21		1534.4	1528.3	1523.3	3.0839	21	
100		22.8	20.3	18.9	1.0994	21	36.5	36.0	35.8	1814	21		1532.8	1525.7	1521.6	3.0698	21	
125		22.0	19.3	18.0	1.0893	21	36.3	36.0	35.7	.2098	21		1531.1	1523.5	1519.5	3,1004	21	
150		21.1	18.6	17.2	.9483	21 **	36.5	36.0	35.7	.2071	21		1528.9	1521.9	1517.4	2.7360	21	
200		19.8	17.4	15.5	1.0390	21 **	37.0	36 . 1	35.6	.3188	21		1527.1	1519.4	1513.8	3.2827	21	
250		18.4	16.4	14.3	1.0561	19 **	36.7	36 . 1	35.5	.3114	19		1523.6	1517.2	1510.4	3.4590	19	
300		17 . 1	15.4	13.2	1.0141	19 00	36.5	36.0	35.5	.2849	19		1520.2	1514.7	1507.4	3.4477	19	
400		15.0	13.7	11.8	.7294	19	36.2	35.8	35.5	.1895	19		1515.3	1510.7	1504.1	2.5054	19	
500		13.5	12.6	11.0	.5547	19	36.0	35.7	35.5	.1302	19		1512.1	1508.6	1502.8	2.0002	19	
600		12.5	11 + 7	10.3	.4922	18	35.8	35.6	35.3	.1278	18		1509.8	1507.0	1502.2	1.7142	18	
700		11.6	11.0	9.8	.4091	18 **	35.7	35.5	35.2	.1338	18		1508.3	1506.0	1501.7	1.5155	18	
800		10.8	10.2	9 . 1	.3899	18 ••	35.6	35.5	35.2	.1150	18		1507.3	1505.0	1500.9	1.4573	18	
900		10.1	9.5	8 . 4	. 3919	17	35.5	35.4	35.2	.0996	17		1506.1	1503.9	1499.9	1.4231	17	
1000		9.3	8.8	7 . 8	.3387	17	35.5	35 . 4	35.1	.0931	17		1504.8	1502.8	1499.0	1.3081	17	
1100	0.0	8.6	8 . 1	7 . 2	.3098	17 **	35.4	35.3	35.1	.0809	17		1503.8	1501.7	1498.2	1.2352	17	
1200		7.9	7 . 4	6.6	.3087	16 **	35.4	35.2	35.0	.0957	16		1502.6	1500.7	1497.4	1 . 2475	16	
1300		7.2	6.7	6.0	. 2892	16	35.3	35.2	35.0	.0856	16	• •	1501.6	1499.6	1446.7	1.1892	16	
1400		6.5	6.0	5 . 4	.2705	16	35.2	35 . 1	34.9	.0730	16		1500.5	1498.5	1495.8	1 . 1004	16	
1500		5.8	5 . 4	4 . 8	.2477	16	35.1	35.0	34.8	.0885	16		1499.2	1497.5	1495.2	.9569	16	
1750		4.3	4 . 1	3 . 7	.1633	15	35.0	34.9	34.7	.0775	15	• •	1497.3	1496.2	1494.8	.6632	15	
2000		3.3	3.1	2.9	.1051	14 **	34.9	34.8	34.6	.1027	14		1496.9	1496.2	1495.5	.4178	1.4	
2500		2.3	2.2	2 . 1	.0667	9	34.8	34.8	34.8	.0000	9		1501.0	1500.6	1500.2	. 2291	9	
3000		1.9	1.8	1.8	.0378	7 ••	34.9	34.8	34.7	.0690	7		1508.2	1507.8	1507.5	.2268	7	

PROVINCE 1 OCT - NOV

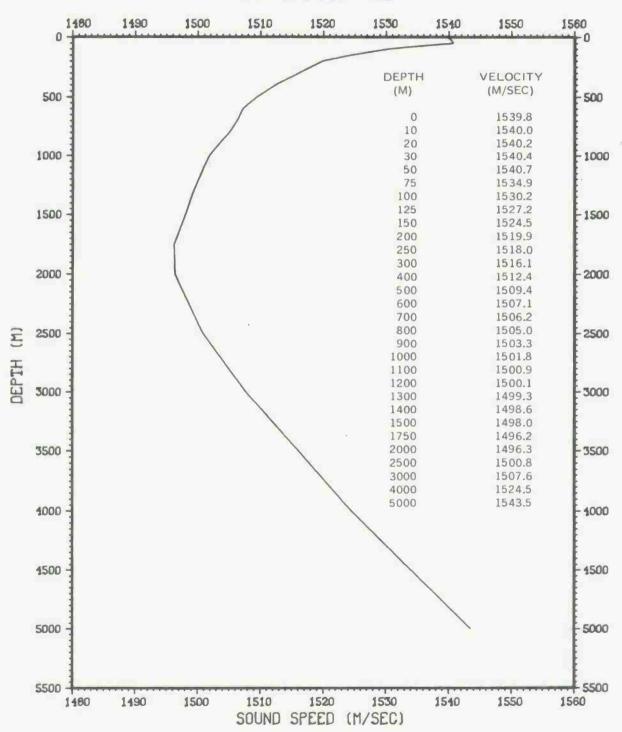


# PROVINCE 2 DEC - FEB

كالمصاب والمرابع ومحمد المستوان والمنافي المنافي المنافي المنافية والمنافية والمنافية والمنافية والمنافية والمنافية

			TEMP	ERATUR	r (c)				SA	LINITY	(PPT)			VELOCITY (M/SEC)						
DEPTH				A. 1-A.		A ( A ) U		M · M	LUM A N	Marie		A1111M		MAX	MEAN	BIN	ST DEV	NUM		
( 14 )		MAX	MEAN	H1N	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		BAA	MEAN	11.4.1%	31 054	NOB		
0		27.4	26.3	25 • 1	. 7384	14		36.6	36.0	35.3	.3897	14		1540.6	1539.0	1536.1	1.5948	14:		
10		27.4	26.4	25.1	.7703	14		36.6	36.1	35.3	.3673	1.4		1540.8	1539.3	1536.3	1.6340	14		
-		27.3	26.4	25.0	. 7899	1.4		36.6	36.1	35.3	.3430	14		1541.3	1539.5	1536.3	1.6939	1.4		
3.0		27.3	26.2	24.4	. 9534	1.4		36.6	36 - 1	35.2	. 3595	1.4		1541.5	1539.3	1535.0	2 . 1449	1.4		
50		27.9	25 . 8	20.5	1.8853	1.4		36.6	36.2	35.7	. 2568	14		1543.6	1538.7	1525.2	4.7187	1.4		
75		26.7	23.9	19.4	1 - 8144	1.4		36.4	36.0	35.6	.2400	1.4		1541.1	1534.4	1522.6	4.6851	1.4		
100		25.2	22.3	18.8	1 . 7788	1.4		36.3	35.9	35.6	. 2455	14		1538.4	1530.9	1521.5	4.6600	14		
125		22.0	20.4	18.2	1.0661	1.4		36.1	35.8	35.5	.1968	1.4		1530.8	1526.2	1520.2	2.9698	14		
150		20 - 1	18.9	17.6	.7367	1.4		36.0	35.7	35.3	2155	1.4		1526.2	1522.4	1518.9	2.1749	1.4		
200		18.7	17.3	15.9	.7378	1.4		36.2	35.7	35.2	.2731	1.4		1523.2	1518.6	1514.1	2.3509	1.4		
250		17.4	16.1	14.7	.7143	1.4		36.1	35.8	35.5	.1900	1.4		1520.0	1516.0	1511.3	2.3266	1.4		
300		16.2	15.1	13.7	.7343	1.4		36.0	35.8	35.5	.1490	14		1517.0	1513.6	1508.8	2.4900	1.4		
400		14.2	13.4	12.4	•5711	1.4		35.9	35.7	35.4	.1399	1.4		1512.4	1509.6	1505.8	2.0323	14		
500		13.4	12.5	11.7	.4420	12		35.8	35.7	35.4	.0996	12		1511.5	1508.0	1505.0	1.6632	12		
600		12.8	11.7	11 - 1	. 4202	12		35.7	35.6	35.3	.0996	12	0.0	1510.7	1506.9	1504.6	1.4538	12		
700		11.3	10.9	10.5	.2335	12		35.6	35.5	35.3	.0888	12		1507.2	1505.8	1503.9	.9185	12		
800		10.5	10.2	9.8	.1969	12		35.6	35.5	35.4	.0622	12		1505.9	1504.8	1503.4	.6921	12		
900		9.7	9.4	9.0	.1954	12		35.5	35.4	35.3	.0622	12		1504.5	1503.5	1502.1	.7158	12		
1000		8 . 9	8.6	8.3	.1782	12		35.4	35.3	35.2	.0669	12		1503.1	1502.2	1501.0	.6523	12		
1100		8 . 1	7.9	7.6	.1676	12		35.3	35.3	35.2	.0515	12		1501.9	1500.8	1499.9	.6544	12		
1200		7 . 4	7 - 1	6.5	. 2539	12		35.3	35.2	35.1	.0515	12		1500.6	1499.5	1497.3	.9403	12		
1300		6.7	6.5	6.2	.1662	11		35.2	35.1	35.0	.0647	1.1		1499.4	1498.7	1497.5	.6592	1.1		
1400		6 - 1	5.8	5 . 6	.1748	1.1		35.1	35.0	34.9	.0674	1.1		1498.6	1497.6	1496.6	.6816	11		
1500		5.5	5.2	5.0	.1758	1.1		35.1	35.0	34.9	.0632	1.1		1498.0	1496.7	1495.5	.8166	11		
1750		4 . 1	3.8	3 • 1	.3314	8		35.0	34.9	34.8	.0641	8		1496.5	1495 - 1	1491.7	1.5334	8		
2000		3 • 1	3.0	2.8	.1304	5		34.9	34.8	34.8	.0548	5		1496.3	1495.7	1494.8	.6731	5		
250n		2.3	2.2	2 . 1	.0957			34.8	34.8	34.8	.0000			1501.4	1500.6	1500.1	.5802	4		
3000	• •	1.9	1.8	1.8	.0707	2	• •	34.7	34.7	34.7	.0000	2	• •	1507.9	1507.7	1507.6	.2121	2		

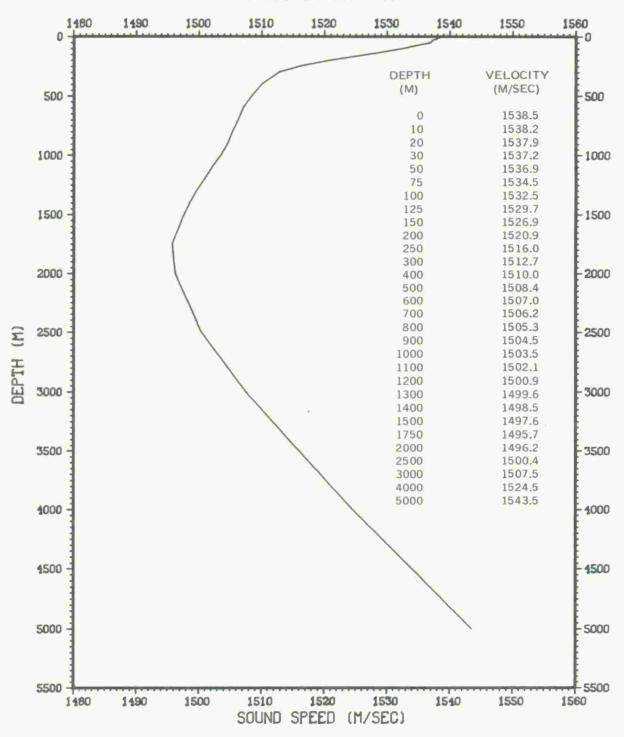
#### PROVINCE 2 DEC - FEB



# PROVINCE 2 MAR - MAY

			TEMP	ERATUR	FICI			5 A	LINITY	(PPT)				VELOC	ITY (M/S	ECI	
DEPTH																	
( M )		MAX	MEAN	MIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0		29.9	26.8	24.5	1.3050	76	36.7	36.3	35.2	. 2896			1547.1	1540.3	1535.3	2.8776	76
10		29.9	26.6	24.4	1.3415	76	36.7	36.3	35.2	. 2818	76		1547.2	1540 . 1	1535.3	2.9531	76
20		29.6	26.3	24.1	1 . 4115	76	36.7	36.3	35.3	. 2658	76		1546.8	1539.6	1534.4	3.1346	76
30		29.0	25.9	22.9	1.4257	76	36.6	36.3	35.5	.2133	76		1545.8	1538.7	1531.5	3.2105	76
50	0.0	27.9	24.9	21.3	1.3576	76	36.6	36.3	35.8	. 1645	76	0.0	1543.6	1536.9	1527.9	3.1606	76
75		26.9	23.9	19.9	1.2847	76	16.6	36.3	35.6	.1832	76		1541.7	1534.8	1524.2	3.1549	76
100		26.1	22.8	18.4	1 . 2554	76	36.5	36.2	35.5	. 2094	76		1540.4	1532.3	1520.3	3.2761	76
125		24.2	21.4	18.3	1.2384	76	36.4	36.0	35.6	. 2210	76		1536.3	1528.9	1520.1	3.4202	76
150		22.7	20.0	17.4	1 . 2423	76	 36.4	35 . 9	35.5	.2263	76		1533.3	1525.7	1518.1	3.5406	76
200	0.0	20.1	17.7	15.6	.9430	76	36,3	35.8	35.5	. 1843	76		1527.0	1520.0	1513.6	2.8572	76
250		19.6	16.4	14.5	. 9240	76	36.4	35.9	35.5	.2030	76		1526.4	1516.9	1510.6	2.9555	76
300		17.5	15.3	13.3	.8305	76	36.5	35.9	35.4	.1962	76		1521.3	1514.3	1507.4	2.7978	7.6
400		15.2	13.6	12.7	.5242	69	36.0	35.8	35.6	.1231	69		1515.6	1510.3	1507.2	1.8261	69
500		13.7	12.5	11.9	.3290	62	35.9	35.7	35.6	.0718	62		1512.6	1508.2	1506.1	1.1730	62
600		12.8	11.7	14 . 2	.2758	61	35.8	35.6	35.5	.0537	61	0.0	1510.9	1507.0	1505.2	. 9755	61
700		11.9	11 + 0	10 . 4	. 2621	60	35.7	35.6	35.5	.0480	60		1509.4	1506.1	1504.1	.9396	60
800		11.0	10.2	9.8	.2428	60	 35.6	35.5	35.4	.0490	60		1507.8	1505.1	1503.3	.8997	60
900		10.2	9.5	9.0	.2339	60	 35.5	35.5	35.4	.0481	60		1506.5	1504.0	1502.0	.8865	60
1000		9.5	8.8	8 . 3	.2374	58	 35.5	35 . 4	35.3	.0397	58		1505.5	1503.0	1501.1	.9106	58
1100	0.0	8.8	8 . 1	7.7	. 2255	57	 35.4	35.3	35.3	.0434	57		1504.4	1501.9	1500.4	.8527	57
1200		8.0	7 . 4	7 . 0	.2136	54	 35.3	35.3	35.2	.0502	54		1503.2	1500.7	1499.2	.8475	54
1300		7.3	6.7	6.3	.2237	52	35.2	35.2	35.1	.0398	52		1502.0	1499.6	1497.9	.9011	52
1400		6.6	6.0	5 . 5	.2239	42	 35.2	35 . 1	35.1	.0377	42		1500.7	1498.5	1496.3	.9211	42
1500	0 0	5.9	5.4	4.7	.2406	41	35.1	35 . 1	35.0	.0506	4.1		1499.5	1497.4	1494.6	.9925	4.1
1750		4 . 4	4.0	3 . 7	.1711	34	 35.0	34.9	34.9	.0448	34		1497.4	1496.0	1494.6	.7367	34
2000		3 . 4	3.1	2.7	.1483	32	34.9	34.8	34.8	.0507	32		1497.4	1496.3	1454.4	.6380	32
2500		2.3	2.2	2 • 1	.0740	21	34.8	34.8	34.8	.0000	21		1501.2	1500.6	1500.2	.2744	21
3000		1.8	1 . 8	1 . 7	.0376	13	34.8	34.7	34.7	.0480	13		1507.7	1507.5	1507.3	.1214	13

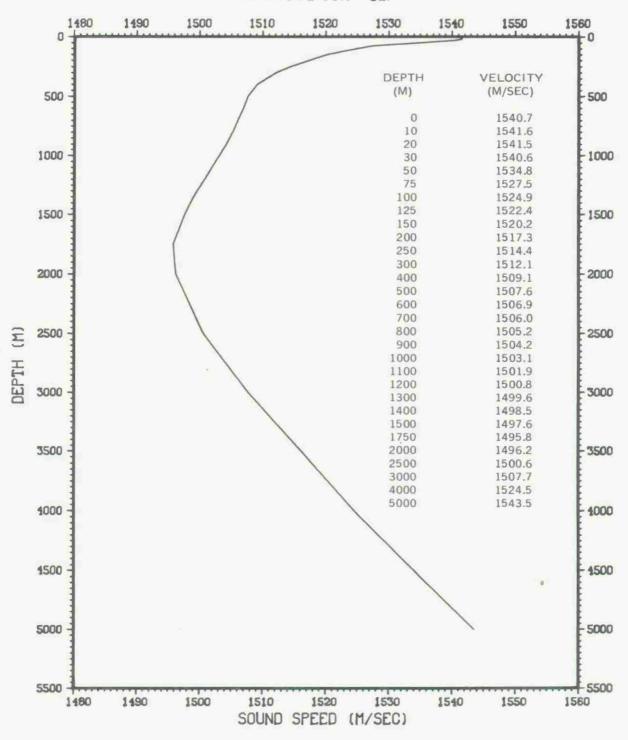
### PROVINCE 2 MAR - MAY



# PROVINCE 2 JUN - SEP

		TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY IM/S	EC)	
DEPTH																	
( M )	MAX	HEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0	 29.2	26.5	21.0	2.0685	59	• •	36.9	36.2	35.5	.3723	59		1546.3	1539.5	1525.6	5.1242	59
10	 29.0	26.4	21.0	2.0445	59	0.0	36.9	36.2	35.7	. 3564	59		1545.9	1539.5	1525.8	5.0717	59
20	 28.9	26.2	20.8	2.2081	59		36.9	36.2	35.7	.3712	59		1545.7	1539.2	1525.6	5.4777	59
30	 28.7	25.9	20.6	2.2911	59		37.0	36.2	35.7	.3689	59		1545.6	1538.6	1525.0	5.7537	59
50	 28.2	24.7	19.5	2 . 4210	59		36.8	36.2	35.6	.3410	59		1544.5	1535.9	1522.6	6.1564	59
75	 27.4	23.0	18.2	2.2225	59		36.8	36.1	35.0	. 3445	59		1543.2	1532.3	1519.3	5.9235	59
100	 26.5	21.5	17.1	2.1488	59		36.9	36.0	35.4	.3342	59		1541.4	1528.9	1516.4	5.9845	59
125	 24.3	20.1	16.8	1.8948	59		37.0	35.9	35.4	.2999	59		1536.8	1525.4	1515.7	5.4246	59
150	 23.7	18.9	16.1	1.7498	59		37.1	35.9	35.4	.2885	59		1535.8	1522.3	1514.1	5.1289	59
200	 22.7	17.1	14.4	1.4388	59		36.7	35.8	35.4	. 2261	59		1534.4	1518.1	1509.4	4.3595	59
250	 18.8	15.9	14.1	1 - 1134	58		36.7	35.8	35.5	. 2218	58		1524.3	1515.2	1509.2	3.5876	58
300	 17.8	14.9	13.4	.9915	58		36.6	35.9	35.5	.2137	58	• •	1522.4	1513.0	1507.7	3.3448	58
400	15.3	13.4	12.2	.6539	58		36.3	35.8	35.4	.1679	58		1516.7	1509.8	1505.3	2.3136	58
500	 13.7	12.5	11.1	.4465	55		36.0	35.7	35.4	.1079	55		1512.5	1508.2	1503.4	1.5767	55
600	 13.6	11.8	11.2	.3704	54		36.0	35.6	35.3	.1069	54		1513.6	1507.3	1505.2	1.3142	5 4
700	12.0	11.1	10.6	. 2559	51		35.9	35.6	35.1	.1028			1510.1	1506.4	1504.3	.9555	51
800	 11.2	10.4	9.8	.2767	50		35.8	35.5	35.0	.1088	50		1508.8	1505.5	1503.3	1.0579	50
900	10.1	9.6	9.1	.2576	49		35.7	35.5	35.1	.0874	49		1506.3	1504.4	1502.3	1.0088	49
1000	9.5	8.9	8 . 4	. 2874	44		35.6	35.4	35.2	.0765	44		1505.7	1503.3	1501.4	1.0833	4.4
1100	8.9	8.1	7.6	. 2983	43		35.5	35.3	35.2	.0666	43		1504.9	1502.0	1499.7	1.1762	43
1200	8.2	7 . 4	6.8	.3084	41		35.5	35.3	35.1	.0830			1503.8	1500.8	1498.7	1 . 1955	41
1300	7.3	6.7	6.3	.2720	39		35.4	35.2	35.1	.0562	39	• •	1502.2	1499.7	1497.8	1.0933	39
1400	6.6	6.1	5 . 6	.2604	38		35.2	35 • 1	35.0	.0547	38		1500.8	1498.6	1496.7	1.0819	38
1500	5.9	5 . 4	5.0	2347	3.8		35.1	35.0	34.9	.0603	38		1499.6	1497.6	1445.9	.9889	38
1750	4 . 4	4 . 0	3 . 7	.1918	32		35.0	34.9	34.8	.0466	32		1497.5	1495.9	1494.6	.8198	32
2000	3.4	3.1	2.8	.1589	29		34.9	34.8	34.8	.0506	29		1497.4	1496.2	1445.0	.6390	29
2500	2.3	2.2	2.0	.0928	28	• •	34.8	34.8	34.7	.0262	28		1501.4	1500.6	1499.8	.3766	28
3000	1.9	1.8	1 . 7	.0707	21		35.0	34.8	34.7	.0956		• •	1508.2	1507.7	1507.3	.2330	21
4000	 1.7	1.7	1 . 7	.0000	1		34.7	34.7	34.7	.0000	1		1524.5	1524.5	1524.5	.0000	1

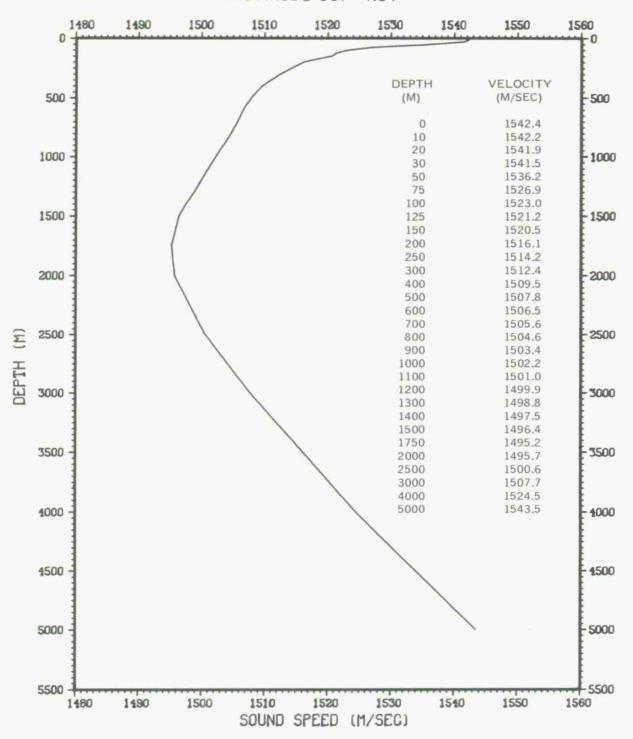
# PROVINCE 2 JUN - SEP



# PROVINCE 2 OCT - NOV

			TEMP	ERATUR	E ICI				SA	LINITY	(PPT)				VELOC	1TY (H/5	EC)	
DEPTH																		
( M.)		MAX	MEAN	M 1 N	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUH		MAX	MEAN	MIN	ST DEV	NUM
U		29.0	27.6	26 • 1	.5573	50	• •	37.0	36.3	35.4	.3273	50	• •	1544.5	1542 • 1	1539.2	1.2709	50
10		29.0	27.6	26.1	.5739	50		37.0	36.3	35.4	. 3104	50		1544.7	1542.3	1538.5	1.3074	50
20		28.9	27.4	24.7	.8037	50		37.0	36.3	35.4	. 3409	50		1544.6	1542.0	1535.5	1.9179	50
30		28.9	26.8	22.4	1.2562	50		37.0	36.2	35.5	. 3669	50		1544.8	1540.9	1529.8	3.0117	50
50		28.7	24.8	20.1	2.0178	50		37.0	36 - 1	35.4	.4086	50		1544.6	1536.3	1524.1	5.1029	50
75		28.6	22.6	18.9	2.0138	50		37.6	36.0	35.2	. 3905	50		1544.7	1531.3	1521.1	5.1951	50
100		27.4	20.9	17.9	1.8517	50		37.1	35.9	35.3	.3301	Sr	• •	1542.6	1527.1	1518.7	4.9313	50
125		24.1	19.5	16.8	1.4953	50		36.8	35.9	35.2	. 2627	5(		1535.5	1523.8	1515.8	4.1350	50
150	0.0	21.4	18.4	16.2	1 - 1501	50		36.5	35.9	35.4	. 2358	5[		1529.7	1521.1	1514.8	3.2443	50
200		18.0	16.6	14.6	.7126	50		36.5	35.8	35.2	. 2517	50		1521.0	1516.6	1510.1	2.2317	50
250		16.9	15 . 4	13.8	.7283	50		36.5	35.9	35.3	. 2467	50		1518.6	1513.8	1508.4	2.3261	50
300		15.8	14.5	13.0	.6054	45		36.5	35.8	35.2	. 2455	45		1515.9	1511.6	1506.5	2.0162	45
400		14.0	13.1	12.0	. 4364	42		36.5	35.8	35.1	. 2574	42		1512.0	1508.7	1504.8	1.5429	42
500	0.0	13.0	12.2	11.7	. 2859	30		36.4	35 . 7	35.6	.1993	30		1509.9	1507.4	1505,5	.9622	30
600		11.9	11 . 4	10.9	. 2399	28		36.4	35.7	35.5	.1815	28		1507.9	1506 . 1	1504.3	.8602	28
700		11.3	10.8	10.2	. 2644	28		36.5	35.6	35.5	. 2052	28	• •	1507.7	1505.4	1503.2	.9895	28
800		10.8	10.1	9.5	.3061	28	0.0	36.5	35.6	35.4	.2154	28		1507.2	1504.6	1502.5	1.1609	28
900		9.9	9.4	8.9	. 2903	24		36.5	35.5	35.4	. 2278	24		1506.6	1503.5	1501.6	1.1563	24
1000	0.0	9.4	8.7	8 . 1	.3333	23		36.5	35.5	35.3	. 2536	23		1505.5	1502.5	1500.3	1.3448	23
1100		8.8	7.9	7.4	. 3307	23		36.4	35.4	35.2	. 2504	23		1504.5	1501.2	1449.0	1.3876	23
1200		8.0	7.2	6 . 7	.3281	21		35.8	35.3	35.1	. 1365	21		1503.0	1499.8	1497.8	1.3278	21
1300		6.9	6.4	6.0	. 2644	21		35.7	35.2	35.0	.1315	21		1500.6	1498.5	1496.5	1.1248	21
1400		6.2	5 . 7	5.3	. 2334	21		35.6	35 . 1	34.9	.1276	21		1499.2	1497.3	1495.3	1.0283	21
1500	0.0	5.6	5.1	4 . 7	.2061	21		35.6	35.0	34.9	.1363	21		1498.3	1496.3	1494.4	.9498	21
1750		4.0	3.8	3.6	.1302	20		35.5	34.9	34.8	.1436	20		1496.5	1495.2	1494.3	.6164	20
2000		3.2	3.0	2.8	.1091	17		35.3	34.8	34.8	.1231	17	• •	1496.8	1495.7	1494.7	.5231	17
2500		2.4	2.1	2 . 1	· 0877	13		34.9	34.8	34.7	.0408	13		1501.8	1500.6	1500.2	.4231	13
3000		2.0	1.8	1.8	· 0647	1.1		34.8	34.7	34.7	.0522	1 1		1508.7	1507.7	1507.4	. 3545	1 1

#### PROVINCE 2 OCT - NOV

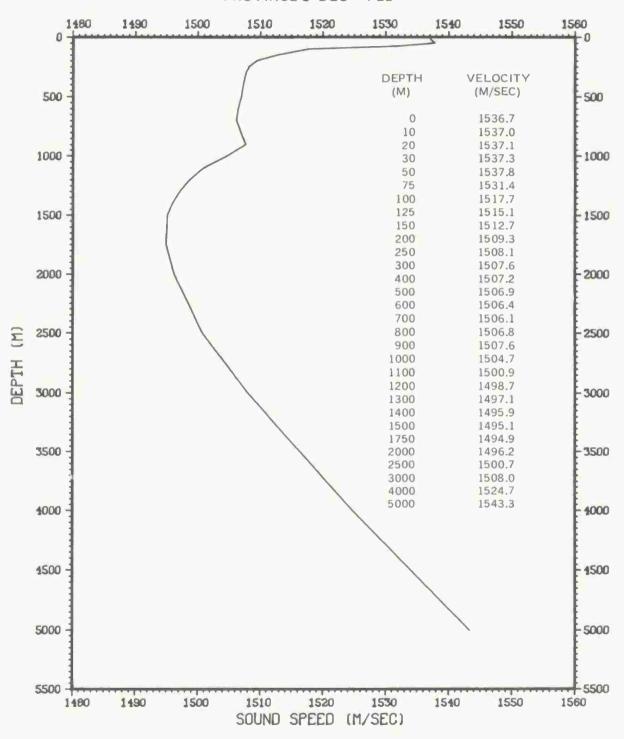


# PROVINCE 3 DEC - FEB

والمستقيد المستقيد والمصافي المستقيد والمستقل المستقل المتعارض والمستقيد والمستقيد والمستقيد والمستقيد المستقيد المستقيد والمستقيد والمتعارض والمت

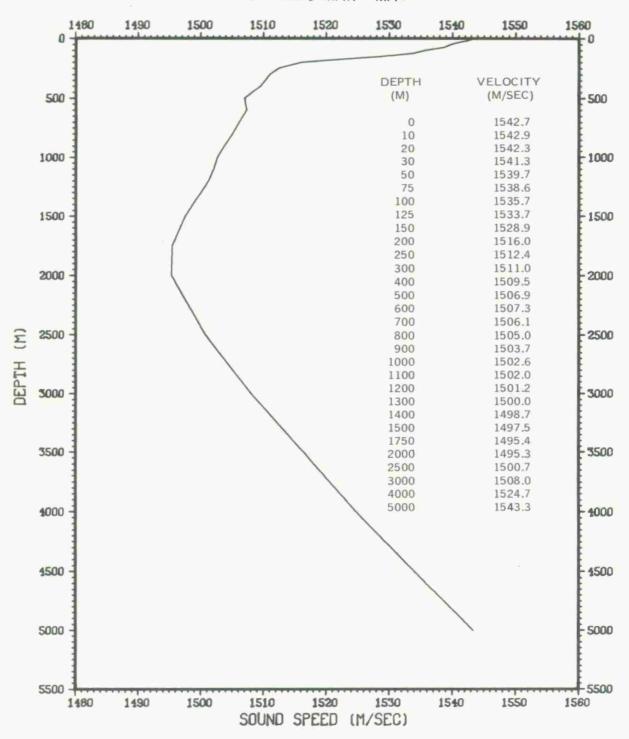
			TEMP	ERATUR	E (C)				5 A	LINITY	(PPT)			VELOC	ITY (M/S	EC)	
DEPTH																	
(M)		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	HIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM
0 •		26.1	25.:	23.5	.5989	29		36.2	35.9	35.6	.1285	29	1538.5	1536+3	1532.3	1.4535	29
10 .		26.0	25.1	23.6	.6218	29		36.1	35.9	35.6	.1264	29	1538.4	1536.4	1532.7	1.4982	29
20 4		26.0	25.1	23.0	.7078	29		36.1	35.9	35.6	.1292	29	 1538.5	1536.4	1531.0	1.7404	29
30 *		26.0	24.8	21.2	1.0556	29		36.1	35.9	35,5	.1481	29	 1538.5	1535.8	1526.6	2.6419	29
50 4		25.9	23.9	18.0	2.1187	29		36.1	35.9	35,4	.2116	29	 1538.8	1533.8	1517.8	5.5643	29
75 •		25.2	21.0	16.6	2.8240	29		36.1	35.7	35,3	.2132	29	 1537.4	1526.6	1514.2	7.7425	29
100 •		23.9	18.5	15.4	2.3536	29		36.1	35.6	35.3	.1542	29	 1534.9	1520.0	1510.8	6.7476	29
125 4		22.2	17.0	14.8	1.6950	29		36.0	35.5	35.4	.1173	29	 1530.7	1516.2	1509.5	4.9932	29
150 •		20.0	15.9	14.4	1.3446	29	* *	36.0	35.5	35.3	.1208	29	1525.2	1513.3	1508.3	4.0932	29
200 *		18.1	14.8	13.3	1.0514	29		36.0	35.5	35.3	.1208	29	1521.2	1510.6	1505.7	3.3569	29
250 •		15.9	13.9	12.6	.6858	28		35.8	35.5	35.3	.1133	28	 1515.0	1508.5	1504.1	2.2823	28
300 •		14.5	13.3	11.9	•5814	28		35.7	35.5	35.2	+1171	28	 1511.5	1507.3	1502.5	2.0252	28
400 •		13.6	12.5	11.6	•5018	27		35.8	35.6	35.2	.1255	27	 1510.4	1506 . 6	1503.1	1.8153	27
500 •		13.1	12.0	11.2	.4755	23		35.9	35.6	35.2	.1579	23	 1510.7	1506.6	1503.6	1.7809	23
600 •		12.7	11.7	10.9	.4077	-	B 0	36.0	35.7	35.5	.1232	22	1510.9	1507 • 2	1504.5	1.4912	22
700 •	0.0	11.8	11.3	10.4	-3801	20		35.9	35.7	35.6	.1021	20	 1509.6	1507.3	1504.3	1.3887	20
800 •		11.2	10.7	9.8	.3563	19		35.9	35.7	35.6	.0872	19	 1508.6	1506.8	1503.7	1.3049	19
900 •		10.7	10.0	9.2	.4660	19		35,8	35.6	35,5	.0970	19	 1508.8	1506.0	1502.9	1.7338	19
1000 •		10.0	9.1	8.5	.4494	16		35.7	35.5	35.4	.0929	16	 1507.9	1504.2	1501.8	1.7418	16
1100 *		9.1	8.2	7.07	.4405	15		35.5	35.4	35.3	.0884	15	 1505.6	1502.2	1500.3	1.6968	15
1200 *	0.0	8.3	7.3	6.9	.4786	14		35.4	35.3	35.2	.0770	14	 1504.3	1500.4	1498.7	1.9324	1.4
1300 •		7.5	6.5	6.0	.5030	1.4		35.3	35.2	35.1	.0679	14	1502,9	1498.7	1496.6	2.1180	14
1400 *		6.6	5.6	5.2	.4070	1.1		35.2	35 . 1	35.0	.0539	1.1	1501.0	1496.7	1495.0	1.7046	1.1
1500 •		5.9	4.9	4 . 6	.3849	1.1		35.1	35.0	35.0	.0302	1.1	 1499.5	1495.6	1494.1	1.5753	1.1
1750 4		4.4	3.8	3 . 4	.3512	7		35.0	34.9	34.9	.0378	7	 1497.6	1495.0	1493.5	1.4572	7
2000 •	0.0	3.5	3 . 1	2.9	. 3464	3		34.9	34.9	34.8	.0577	3	 1498.0	1496.2	1495.3	1.5308	3
2500 •		2.2	2.2	2.2	.0000	1		34.8	34.8	34.8	.0000	1	 1500.6	1500.6	1500.6	.0000	1
3000 •		1.9	1.9	1.9	.0000	1.		34.7	34.7	34.7	.0000	1	1507.9	1507.9	1507,9	.0000	1

#### PROVINCE 3 DEC - FEB



			TEMP	ERATUR	E (C)			5 A	LINITY	(PPT)				AEFOC	TTY THES	(DEC)	
DEPTH		MAX	MEAN	MIN	ST DEV	NUM	HAX	MEAN	HIN	ST DEV	NUM		HAX	MEAN	HIN	ST DEV	NUM
		29.8	28.7	25 • 1	1 • 0 4 6 7	34 **	36.3	36.0	35.4	:2555	34	• •	1546.7	1544.2	1536.3	2.2550	34
10	• •	29.7	28.5	25 - 1	1.0171	34 **	36.3	36.0	35.5	. 2352	34		1546.8	1543.8	1536.5	2.1653	34
		29.6	28.1	25.1	1.0779	34 00	36.3	36.0	35.5	2027	34		1546.7	1543.1	1536.7	2.3158	34
20 30		29.4	27.4	25 . 1	1.1680	34 **	36.3	36.0	35.6	1684	34		1546.2	1541.8	1536.9	2.5450	34
50		29.4	26.0	22.4	1.4684	34 • •	36.3	36.0	35.7	1512			1546.6	1539.1	1530.4	3.3782	34
75		27.1	24.3	20.8	1.6835	34 00	36.3	36.0	35.7	.1535	34		1541.7	1535.4	1526.5	4.1889	34
100		25.9	22.7	19.1	2 • 1216	34 • •		35.9	35.6	1708	34		1539.6	1531.7	1522.1	5.5695	34
125		24.8	20.9	17.5	2.2791	34 **		35.8	35.5	.1915	34		1537.7	1527.2	1517.9	6.1909	34
150		23.7	19.3	16.5	2 - 1302	34 • •	36.7	35.7	35.4	2117	34		1535.9	1523.3	1515.0	6.0055	34
200		19.9	16.6	15.1	1.1538	34 **	35.7	35.6	35.3	.1138	34		1526.0	1516.3	1511.7	3.4917	34
250		16.7	15.1	14.1	.6445	32 **		35.6	35.4	.1268	32		1517.5	1512.6	1509.2	2.0830	32
300		15.2	14.2	13.2	.5179	31	35.8	35.6	35.3	.1211	31		1513.6	1510.4	1506.9	1.7448	31
400		14.0	13.0	12.0	.3848	28 **	35.7	35.6	35.3	.0979	28		1511.5	1508.1	1504.6	1.3269	28
500		13.0	12.3	11.8	. 2885	28		35.6	35.4	1031	28		1510.0	1507.4	1505.4	1.0828	28
600		12.8	11.8	11.3	.3985	27	36.0	35.7	35.4	1251	27		1511.2	1507.5	1505.6	1.5139	27
700		12.3	11.3	10.7	.4083	27	36.0	35.7	35.4	.1251	27		1511.2	1507.3	1505.0	1.5849	27
800		11.5	10.7	10.1	. 4191	26	36.0	35.6	35.4	.1379	26		1510.1	1506.8	1504.6	1.6709	26
900		11.0	10.0	9.4	. 4396	25	35,8	35.6	35.4	.1180	25		1509.7	1506.0	1503.7	1.6676	25
1000		10.3	9.2	8 . 6	.3937	23	35.7	35.5	35.4	.0810	23		1508.8	1504.5	1502.1	1.5221	23
1100	0.0	9.3	8 . 4	7.8	.3472	22	35.6	35.4	35.3	.0733	22		1506.9	1502.9	1500.6	1.4036	22
1200		8.6	7 . 6	7.2	.3582	19	35.5	35.3	35.2	.0809	19		1505.4	1501.6	1499.8	1.4327	19
1300		8.0	6.8	6.4	.3691	19	35.3	35.2	35.1	.0567	19		1504.7	1500.1	1498.3	1.4761	19
1400		7.3	6 . 1	5 . 7	.3632	18	35.2	35 . 1	35,1	,0461	1.8		1503.7	1498.7	1497.2	1.4585	18
1500		6.6	5.3	4 . 9	.3552	18	35.2	35.0	35.0	.0786	18		1502.6	1497.3	1495.4	1.4972	18
1750		4 + 1	3.9	3.7	.1348	17	35.0	34.9	34.9	.0437	1.7		1496.6	1495.5	1494.5	.6060	17
2000		3.6	3.1	2.8	. 1977	13	34.9	34.8	34.8	.0376	13		1498.3	1496.1	1495.1	.7996	13
2500		2.2	2 . 1	2.0	.0837	6	34.9	34.8	34.8	.0408	6		1501.0	1500.6	1499.8	.4274	6
3000		1.8	1.8	1.8	.0000	1	34.7	34.7	34.7	.0000	1		1507.7	1507.7	1507.7	.0000	1

### PROVINCE 3 MAR - MAY

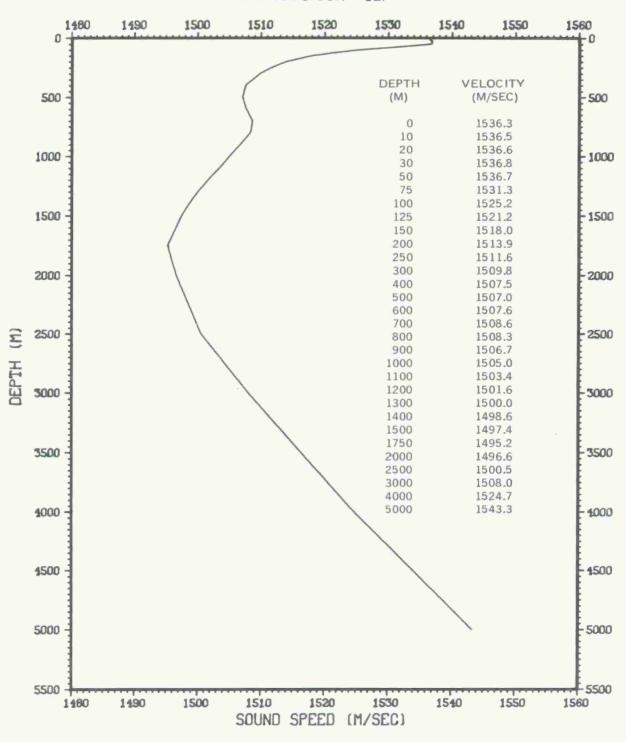


# PROVINCE 3 JUN - SEP

وروبير والمناطقة والمراوي والمناب والمناطق والمراوي والمناطقة والم

		TEMP	ERATUR	E (C)			SA	LINITY	(PPT)				VELOC	ITY (H/S	ECI	
DEPTH																
( M )	HAX	MEAN	MIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUH
0   • •	30.6	26.5	20.2	2.9811	37 **	36.3	35.9	35.4	.2135	37		1548.3	1538.9	1523.6	7 - 1166	37
10 ••	30.5	26.3	20.1	3.0229	37	36.2	35.9	35.4	.2146	37		1548.4	1538.7	1523.6	7.2465	37
20 00	30.2	25.1	19.9	3.1659	37	36.2	35.9	35.4	.1916	37		1547.8	1536.1	1523.1	7.7119	37
30 **	29.5	23.8	19.0	2.8192	37	36.1	35.8	35.4	.1653	37		1546.4	1532.9	1520.6	7.0126	37
50 •	28.4	22.3	17.9	2.9068	37	36.0	35.7	35.3	.1507	37		1544.0	1529.5	1517.7	7 . 4814	37
75 **	27.3	20.7	16.8	3.0260	37	36.0	35.7	35.3	.1417	37		1542.1	1525.8	1514.6	7.9955	37
100 •	26.8	19.4	15.6	2.9970	37	36.0	35 . 7	35.2	.1386	37		1541.7	1522.6	1511.6	8.0880 ~	37
125 **	25.9	18.3	15.3	2.7069	37	36.0	35.6	35.2	.1415	37		1540.1	1519.9	1511.1	7.4959	37
150	23.5	17.2	14.4	2 - 1790	37	35.9	35.6	35.2	.1316	37		1534.7	1517.1	1508.3	6 . 2741	37
200 **	19.0	15.5	13.5	1.2459	37	35.7	35.6	35.3	.0970	37		1523.4	1512.8	1506.3	3.8253	37
250 •	17.0		12.6	.9397	37	15.8	35 . 6	35.3	.0948	37		1518.3	1510.6	1503.9	3.0316	37
300 **	15.3	13.7	11.8	.6725	36 ••	35.8	35.6	35,3	.0971	36		1514.3	1508.9	1501.9	2.3178	36
400 • •		12.8	11.0	.5256	34	35.8	35.6	35.2	.1083	34		1510.3	1507.4	1500.8	1.8746	34
500 • •			11 - 4	.4003	30	35.8	35.6	35.4	.0935	30	• •	1509.9	1507.3	1504.2	1.4804	30
600		11.9	11.0	.4620	30	36.0	35.7	35.5	.1137	30		1512.7	1507.7	1504.4	1.7240	30
700 **	12.5	11.4	10.4	.4169	30 **	36.0	35.7	35,4	.1189	30		1511.9	1507.7	1503.7	1.6160	3.0
800 ••		10.8	9.6	.4571	30 ••	35.9	35.7	35.4	.1135	30		1510.9	1507.3	1502.6	1.7604	30
900 • •	10.9	10.1	8.8	.4997	28 ••	35.8	35.6	35.3	.1261	28		1509.6	1506.2	1501.0	1.9790	28
1000		9.2	8.0	.4639	25 ••	35.7	35.5	35.2	.1077	25		1508.1	1504.6	1499.7	1.7877	25
1100 **	9.1	8.3	7 . 4	.3908	25	35.6	35.4	35.2	.0935	25		1505.9	1502.8	1498.9	1.6251	25
1200 **	8 - 1	7 . 5	6.7	.3547	25	35.5	35.3	35.1	.0898	25		1503.9	1501.1	1498.0	1.4635	25
1300 **	7.3	6.7	6.2	.2691	25 • •	35.4	35.2	35.1	.0676	25		1502.2	1499.6	1497.5	1.1138	25
1400		6.0	5.5	.2408	24	35.3	35 . 1	35.0	,0637	24		1500.5	1498.3	1496.2	.9798	2 4
1500	5.7	5.3	4.8	.2120	24	35.1	35.0	35.0	.0495	24		1498.8	1497.1	1494.9	.8851	24
1750		3.9	3.6	.1941	22	35.0	34.9	34.9	.0294	22		1497.1	1495.6	1494.1	.8381	22
2000 **		3.1	2.9	.1166	17 **	34.9	34.8	34,8	,0514	17		1497.2	1496.2	1495.4	.5522	17
2500 **			2 . 1	.0500	4	34,8	34.8	34,8	.0000	- 4	• •	1500.9	1500.7	1500.3	.2872	4
3000 **	2,0	2.0	1.9	.0707	2 ••	34.8	34.7	34.7	.0707	2		1508.5	1508.2	1507.9	.4243	2

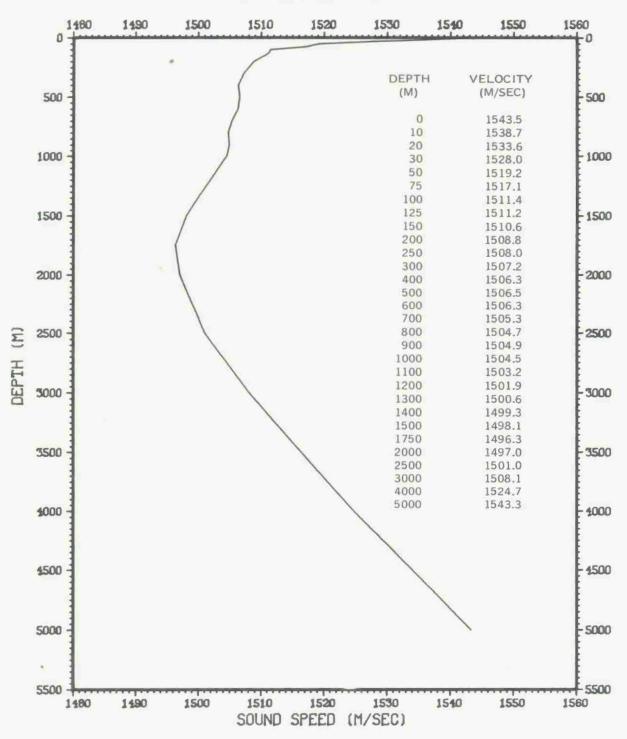
#### PROVINCE 3 JUN - SEP



# PROVINCE 3 OCT - NOV

		TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY THIS	EC)	
DEPTH									***		No. 110M		MAX	MEAN	MIN	ST DEV	NUH
EH ):	MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	HIN	ST DEV	NUM		naa	REAR	(4	31 061	14.011
0	 28.4	26.8	23.2	1.3314	1.4	• •	36.4	35.8	35.4	. 2674	14	• •	1543.5	1539.7	1530.9	3.2642	14
10	 27.6	25.9	21.8	1.6288	14		36.2	35.7	35.4	.2499	14		1541.8	1537.9	1527.5	4.0555	14
20	 27.6	24.3	19.1	2.4406	1.4		35.9	35.6	35.3	.1664	1.4		1541.9	1534 . 1	1520.7	6.1147	1.4
30	 26.9	22.6	16.9	2.9296	1.4		35.9	35.5	35.3	.1834	1.4		1540.5	1529.6	1514.4	7.6191	14
50	 26.3	20.8	16.3	2.9991	1.4		35,7	35.5	35.3	.1477	14		1539.5	1525.3	1512.9	8.0206	14
75	 25.0	19.0	15.4	3.0561	1.4		35.6	35.5	35.3	.1051	14		1536.8	1520.9	1510.7	8.3668	14
100	 23.8	17.8	14.9	3.0841	14		35.6	35.5	35.3	1151	1.4		1534.3	1517.9	1509.6	8.6560	14
125	 23.1	16.9	14.5	2.9291	1.4		35.6	35.5	35.3	.1139	1.4		1533.0	1515.5	1508.2	8.4823	14
150	 21.5	16.1	13.5	2.6334	14		35.6	35.5	35.2	.1151	14		1529.4	1513.5	1505.4	7.8417	14
200	 18.3	14.7	12.7	1.5323	14		35.7	35.5	35.2	.1406	14		1521.4	1510.1	1503.8	4.8465	1.4
250	 16.5	14.0	12.7	1.0222	14		35.8	35.5	35.2	.1657	14		1516.8	1508.8	1504.5	3.3341	14
300	14.6	13.3	12.3	.7065	14		36.0	35.5	35.2	.2056	1:4		1511.9	1507.3	1503.8	2.4923	1.4
400	12.8	12.1	11.1	.4660	12		35.6	35.4	35.2	.1371	12		1507.5	1505.0	1501.3	1.6903	12
500	 12.1	11.6	10.8	.4967	11		35.6	35.5	35,2	.1206	1.1		1506.8	1505.0	1501.7	1.8625	1.1
600	11.9	11.3	10.3	.5221	11		35.7	35.5	35.3	1095	1.1		1507.8	1505.4	1501.6	2.0277	11
700	 12.3	11+1	10.2	.5973	11		35.9	35.6	35.3	.1629	11		1511.1	1506.4	1502.9	2.2882	1.1
800	 11.8	10.5	9.8	.6569	10		15.9	35.5	35.3	.1897	10		1511.1	1506.2	1503.1	2.5373	10
900	11.3	10.2	9.5	.5239	9		35.9	35.6	35,4	.1424	9		1511.1	1506.6	1503.9	2.0887	9
1000	10.7	9.7	9 . 1	.6388	7		35.9	35.6	35.4	.1676			1510.6	1506.5	1504.0	2.5337	7
1100	9.9	8.9	8,3	.6733	7		35.9	35.5	35.3	,2116	7		1509.0	1505.1	1502.8	2.7495	7
1200	9.3	8 . 1	7 . 4	.7198	7		35.8	35.4	35.2	.2215	7		1508.3	1503.6	1500.8	2.8956	7,
1300	8.5	7.3	6.6	.6817	7		35.8	35.3	35.1	. 2646			1506.5	1502.0	1499.2	2.6956	7
1400	 7.3	6.4	5.9	.4880	7		35.7	35.2	35.1	.2299		• •	1503.6	1500.2	1497.9	2.0062	7
1500	 5.9	5.6	5.3	.2138	7		35.6	35.2	35.0	.2360			1499.4	1498.3	1496.9	.9361	
1750	 4.4	4.2	4 + 1	.1304	5		35.3	35.0	34.9	.1789			1497.6	1496.7	1496.1	.5805	5
2000	 3.6	3.3	3 . 1	.2082	.4	0.0	34.9	34.8	34.8	.0500			1498.3	1497.3	1496.3	.8347	7
2500	 2.3	2.3	2.3	.0000	1		35.0	35.0	35.0	.0000	1		1501.5	1501.5	1501.5	.0000	1

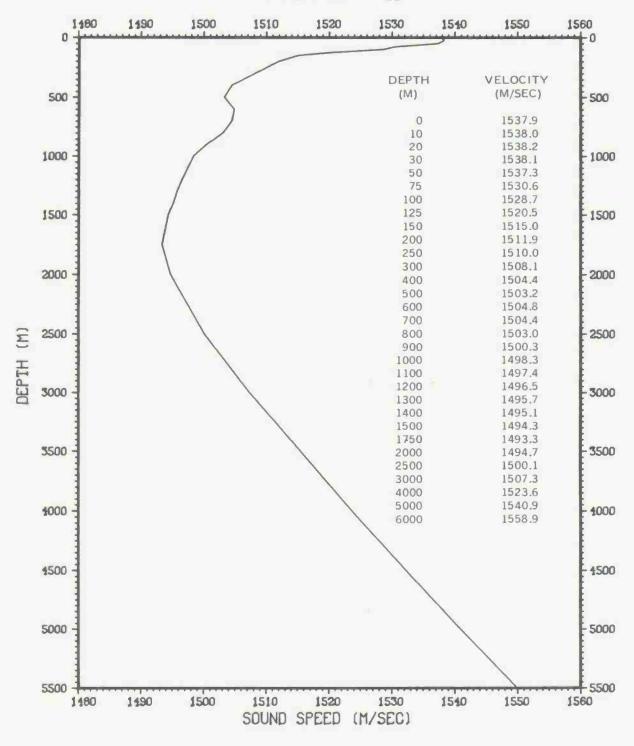
#### PROVINCE 3 OCT - NOV



### PROVINCE 4 DEC - FEB

		TEMP	ERATUR	RE ICI				SA	LINITY	(PPT)			VELOC	ITY IM/S	EC)	
DEPTH																
E M 3	MAX	MEAN	MIN	ST DEV	NUM		HAX	MEAN	HIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM
0	26.2	25.7	25.3	• 3222	18		36.0	35.8	35.6	.1335	18	 1538.3	1537.4	1536.5	.6572	18
10	26.2	25.7	25.3	. 3142	18		35.9	35.8	35.6	.1195	18	 1538.5	1537.5	1536.6	.6443	18
20	 26.2	25.7	25.3	.3208	18		36.0	35.8	35.6	.1274	18	 1538.6	1537.6	1536.7	.6662	18
30	 26.2	25.7	25.3	.3053	18		35.9	35.8	35.6	.1188	18	 1538.8	1537.7	1536.9	.6243	18
50	26.0	25.4	23.6	.5458	18		36.0	35.8	35.4	.1577	18	 1538.7	1537.5	1532.8	1.3436	18
75	25.8	23.8	21.4	1.4589	18		36.1	35.7	35.3	.2227	18	 1538.9	1534.0	1527.6	3.7566	18
100	 24.6	21.6	19.2	1.3426	18		35.7	35.5	35.3	.1420	18	 1536.3	1528.5	1521.8	3.6343	18
125	 21.1	19.1	18.0	.9841	18		35.6	35.5	35.3	.0970	18	 1527.7	1522.3	1519.0	2.7910	18
150	 19.0	17.3	16.5	.7639	18		35.5	35.4	35.3	.0808	18	 1522.4	1517.4	1514.9	2.2612	18
200	 16.0	15.1	14 . 4	. 4764	18		35.5	35.4	35.3	.0802	18	 1514.3	1511.4	1509.2	1.5496	18
250	 14.5	13.8	13.2	.4203	18		35.6	35 . 4	35.3	.0832	18	 1510.6	1508.3	1506.1	1.4210	18
300	13.8	13.0	12.3	.4733	17		35.7	35.4	35.3	.1147	17	 1509.2	1506.3	1503.9	1.6857	17
400	 12.7	12.0	11.3	.4116	17		35.5	35.4	35.2	.0899	17	 1507.2	1504.9	1502.0	1.5649	17
500	 12.0	11.3	10.6	.3999	17		35.6	35.4	35.3	.0827	17	 1506.4	1503.6	1501.0	1.5023	17
600	 11.5	10.8	9.9	.4380	16		35.6	35.4	35.3	.0892	16	 1506.5	1503.6	1500.4	1.6325	16
700	 11.0	10.1	9.3	.5045	16		35.6	35.4	35.2	.1065	16	 1506.4	1502.9	1499.6	2.0194	16
900	10.6	8.8	8 . 4	. 5816	16	• •	35.6	35.4	35.2	.1167	16	 1506.3	1502 • 1	1498.2	2.2192	16
1000	 9.0	8.0	6.8	.6239	15		35.5	35.3	35.1	.1033	15	1503.9	1499.7	1495.0	2.5017	15
1100	 8.0	7.1	6.3	.5017	13		35.3	35.2	35.1	.0768	13	 1501.3	1497.8	1494.3	2.0794	13
1200	 7.2	6.4	5.7	.4462	13		35.2	35.1	35.0	.0760	13	 1499.8	1496.6	1493.7	1.8274	13
1300	 6.3	5.7	5.2	. 3453	13	9 .	35.1	35.0	35.0	.0439	13	 1498.1	1495.5	1493.4	1.4689	1.3
1400	 5 . 6	5.1	4 . 7	.3040	13		35.0	35.0	34.9	.0376	13	1496.8	1494.7	1492.8	1.2705	13
1500	 5.1	4.5	4 - 1	. 3297	1 1		35.0	34.9	34.9	.0467	11	 1496.1	1494.0	1492.1	1.4052	11
1750	 3.9	3.4	2.8	. 3734	9		34.9	34.8	34.8	.0527	9	 1495.4	1493.4	1490.7	1 . 6055	9
2000	 3.2	2.8	2.4	.2507	8		34.8	34.8	34.8	.0000	8	 1496.6	1494.8	1493.1	1.0836	8
2500	2.2	2.1	2.0	.0835			34.8	34.8	34.7	.0354	8	 1500.8	1500.3	1499.8	.3891	8
3000	1.9	1.8	1 . 7	.0900	_		34.8	34.7	34.7	.0488	7	 1508.2	1507 . 7	1507.3	.3599	7
4000	1.5	1.5	1 . 4	.0516	6		34.7	34.7	34.7	.0000	16	 1523.9	1523.6	1523.2	.2483	6

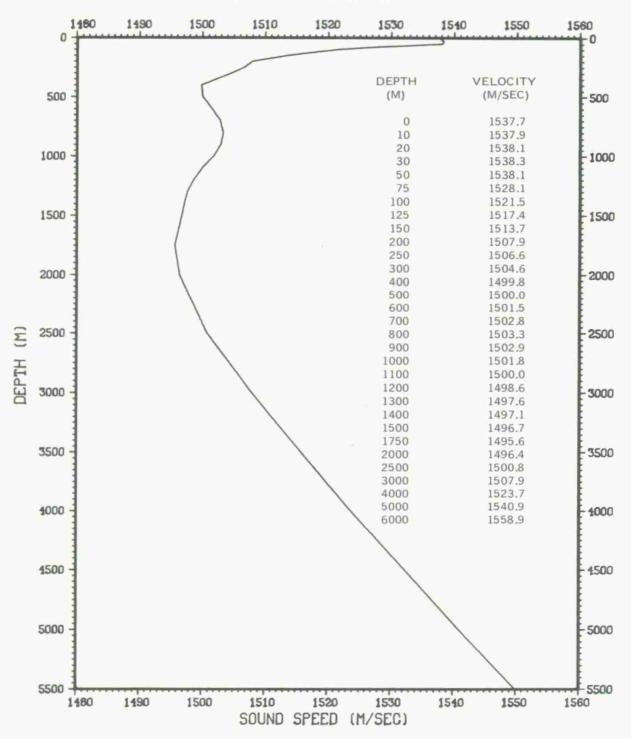
PROVINCE 4 DEC - FEB



### PROVINCE 4 MAR - MAY

			TEMP	ERATUR	(C)				SA	LINITY	(PPT)				VELOC	ITY (M/S	EC)	
DEPTH																		
LH()		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0	• •	29.5	27.1	25.8	1.6851	1.1		35.9	35.7	35.3	. 2256	11	• •	1545.5	1540.4	1537.6	3.5189	1.1
10		29.4	27.1	25.8	1.6250	1.1		35.9	35.7	35.3	. 2256	1.1		1545.7	1540.4	1537.8	3.3833	1 1
20	0 0	29.3	27.0	25 . 8	1.5280	1.1		36.0	35.7	35.3	.2712	1.1		1545.6	1540.4	1537.9	3.2561	1.1
30		28.9	26.8	25.8	1 - 3194	1.1		36.1	35.7	35.3	. 2359	1.1		1545.2	1540.3	1538.1	2.8161	1-1
50		28.0	26.2	24.9	.9850	11		36.1	35.7	35.4	· 1864	1.1		1543.6	1539.2	1536.2	2.1892	1 1
75		26.2	23.0	21.2	1.4892	1 1		35.9	35.7	35.5	. 1502	1.1		1539.9	1532.0	1527.3	3.7776	1.1
100		24.6	20.8	18.8	2.0305	11		36.1	35.6	35.4	.2054	1.1		1536.8	1526.6	1521.1	5.5378	1.1
125		22.0	18.5	16.5	1.8918	1 1		35.8	35.5	35.4	.1342	1.1	• •	1530.5	1520.4	1514.5	5.4843	1.1
150		19.6	16.7	14.9	1.6854	1.1		35.6	35.4	35.3	.0944	1.1		1524.3	1515.4	1509.9	5.1372	1 1
200		16.2	14.4	13.0	1.1048	1.1		35.4	35.3	35.2	.0982	1.1		1514.8	1509.0	1504.3	3.6005	1.1
250		14.7	13.3	12.2	.7866	1.1		35.4	35.3	35.1	.0894	1.1		1510.9	1506.2	1502.4	2.6593	1 1
300		13.7	12.4	11.6	.6362	11		35.4	35.3	35.1	.1044	1.1		1508.3	1503.9	1501.0	2.1868	1.1
400		12.9	11.3	10.7	.8055	11		35.5	35.2	35.1	.1328	1 1		1507.8	1501.9	1499.6	2.9200	1.1
500		12.5	10.9	10.2	.8274	11		35.6	35.2	35.1	.1502	1.1		1507.6	1502.0	1499.4	3.0097	1.1
600		12.2	10.5	9.9	.7561	1.1		35.6	35.3	35.2	.1221	1 1		1508.5	1502.5	1500.1	2.7973	1.1
700	• •	12.0	10.2	9.5	.7363	1 1		35.5	35.3	35.2	.1044	1.1		1509.5	1503.1	1500.2	2.7357	1.1
800		11.8	9.9	9 . 0	.7580			35.5	35.3	35.2	.1027	1.1		1510.5	1503.5	1500.2	2.8401	1.1
900		11.7	9.4	8 . 7	.8400	11		35.4	35.3	35.2	.0775	1.1		1511.5	1503.4	1500.5	3.0390	1 1
1000		11.5	8 . 9	8 . 1	.9590			35.4	35.3	35.2	.0786	1.1		1512.6	1503.1	1500.2	3.5317	1.1
1100		8 . 6	7.9	7.2	. 4577	. 0		35.3	35.2	35.1	.0568	10		1503.7	1501.1	1498.3	1.7641	10
1200		7 . 7	7 . 2	6 . 4	.4149		• •	35.2	35 • 1	35.1	.0527	10		1501.9	1499.8	1496.7	1.6867	10
1300		7.0	6.4	5.7	. 3853		• •	35.1	35.1	35.0	.0422	10	• •	1500.7	1498.4	1495.3	1.5619	10
1400		6.3	5.7	5.0	.4050	10		35.1	35.0	34.9	.0568	10		1499.7	1497.0	1494.2	1.6814	10
1500		5.7	5.0	4 . 2	.4692			35.0	34.9	34.9	.0527	10	• •	1498.8	1495.7	1492.5	1.9795	10
1750		4.4	3.8	3.0	-4211		• •	34.9	34.9	34.8	.0483	10		1497.6	1494.9	1491.7	1.7666	10
2000		3.5	3.1	2.6	.3120	10		34.9	34.8	34.8	.0422	10		1497.8	1496.1	1494.2	1.2888	10
2500		2.7	2.3	2 . 1	.1912	- 0		34.9	34.8	34.8	.0316	10	• •	1502.9	1501.2	1500.3	.7531	10
3000		2.0	1.9	1 . 8	.0568	10	• •	34.9	34.8	34.7	.0699	10		1508.5	1508.0	1507.6	. 2424	10
4000		1.6	1.5	1.5	.0463			34.7	34.7	34.7	.0000	0		1524.2	1523.8	1523.6	.2295	8
5000	• •	1.3	1.3	1.3	.0000	1	• •	34.7	34.7	34.7	.0n00	1	• •	1540.7	1540 . 7	1540.7	•0000	1,

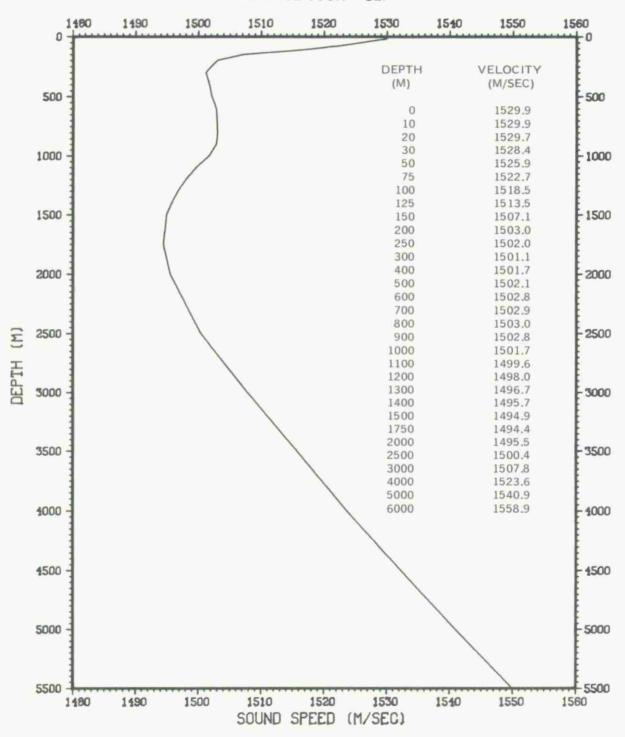
PROVINCE 4 MAR - MAY



### PROVINCE 4 JUN - SEP

		TEMP	ERATUR	E (C)			SA	LINITY	(PPT)				VELOC	ITY (M/S	SECI	
DEPTH (M)	MAX	MEAN	м 1 N	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
a ••	27.2	21.9	1414	2.9298	50 .	36.1	35.3	35.1	.1810	50	• •	1540.3	1527 - 1	1505.7	7.8390	50
10 **	27.2	21.8	14.4	2.9714	50	36.1	35.3	35.1	.1730	50	• •	1540.5	1527.0	1505.8	7.9756	50
20 • •	27.2	21.5	14 - 1	3 - 1654	50	36.1	35.3	35.1	.1694	50		1540.7	1526.5	1505.0	8.5784	50
30 ••	27.2	21.1	13.5	3.4830	50	35.9	35.3	35.1	.1439	50		1540.8	1525.4	1503.1	9.5728	50
50 10	27.2	20.2	12.0	4.0578	50 **	35.6	35.3	35.1	.1143	50		1541.1	1523 - 1	1498.3	11.4121	50
75 • •	27.2	19.2	11.6	4.4250	50	35.6	35.2	35.1	.1182	50		1541.6	1520.6		12.6014	5.0
	26.2	18.1	11.3	4.3810	50	35.5	35 • 2	35.1	.1035	50		1539.8	1517.9		12.6722	50
100 ••	26 • 1	16.9	11.3	4.2571	50 ••	35.5	35.3	35.1	.1143	50		1539.9	1515.0		12.4497	50
125 • •	25.9	16.0	11.1	4.0376	50 **	35.5	35.2	35.0	.1147	50		1540.0	1512.5		11.9651	50
	22.6	14.2	10.7	3.0166	50	35.5	35.2	35.0	.1230	50		1532.9	1508.1	1496.2	9.2986	50
200 **	17.7	13.0	10.8	1.6770	46	35.5	35.2	35.0	.1210	46		1520.1	1505.3	1497.6	5.5687	46
250 ••	14.7	12.2	10.1	1.1139	46	35.5	35.2	35.0	.1314	46		1511.6	1503.3	1495.6	3.8869	46
300 **	12.9	11.4	9.9	.7456	44	35.5	35.2	35.0	.1248	4.4		1507.5	1502.0	1496.8	2.6770	44
400 · ·	12.0	10.8	9.7	.5802	42	35.5	35.3	35.0	.1203	42		1506.2	1501.9	1497.5	2.1592	42
	11.4	10.4	9.2	.5094	41 **	35.5	35.3	35.0	.1034	4.1		1505.9	1502.2	1497.5	1.9080	4.1
700 ••	10.8	9.9	8.7	.5107	39 • •	35.5	35.3	35.1	.0894	39		1505.3	1501.9	1497.3	1.9661	39
800 **	10.4	9.4	8 . 4	.4623	38	35.5	35.3	35.2	.0784	38	0 0	1505.6	1501.7	1498.0	1.7676	38
900	10.1	8.9	8 - 1	.4141	38	35,5	35.3	35.2	.0695	38		1506.4	1501.5	1498.2	1.6605	38
1000 ••	9.4	8.3	7.3	. 4384	35	35.5	35.3	35.1	.0684	35		1505.3	1500.8	1497.2	1.7243	35
1100 **	8 . 4	7 . 6	6.5	. 4044	34	35.3	35.2	35.0	.0674	3 4		1503.0	1499.6	1495.3	1.6075	34
1200 ••	7.4	6.7	5.7	.3730	28	35.2	35.1	35.0	.0568	28		1500.5	1498.0	1493.9	1.4830	28
1300 **	6.4	6.0	5 . 2	.3300	27	35.1	35 • 1	34.9	.0572	27		1498.4	1496.7	1493.2	1.3717	27
1400 **	5.8	5.4	4.7	.3014	26	35.1	35.0	34.9	.0392	26		1497.4	1495.7	1492.8	1.2751	26
1500 **	5.3	4.8	4 . 2	.2980	23 **	35.1	35.0	34.9	.0593	23		1497.0	1494.9	1492.4	1.2641	23
	9.1	3.7	3 • 2	. 2355	21	34.9	34.9	34.8	.0483	21		1496.4	1494.4	1492.2	1.0351	2.1
1750 ••		2.9	2.6	.2149	18 .	34.8	34.8	34.8	.0000	18		1497.2	1495.5	1494.1	.9139	18
2000 ••	3.3	2.1	2.0	.0834	15 **	34.8	34.8	34.7	.0414	15		1501.1	1500.4	1500.0	.3342	15
2500 ••		1.8	1.8	.0480	13 **	34.8	34.7	34.7	.0277	13		1508.2	1507.7	1507.4	.2304	1 3
3000 ••	1.9		1.4	.0422	10 *•	34.7	34.7	34.7	.0000	10		1523.7	1523 . 4	1523.1	.1947	10
4000 ••	1.5	1 • 4	-	.0000	3 **	34.7	34.7	34.7	.0000			1541.0	1541.0	1541.0	.0000	3
5000 ••	1 • 4	1 . 4	1 • 4	• 0000	3	3 4 4	3									

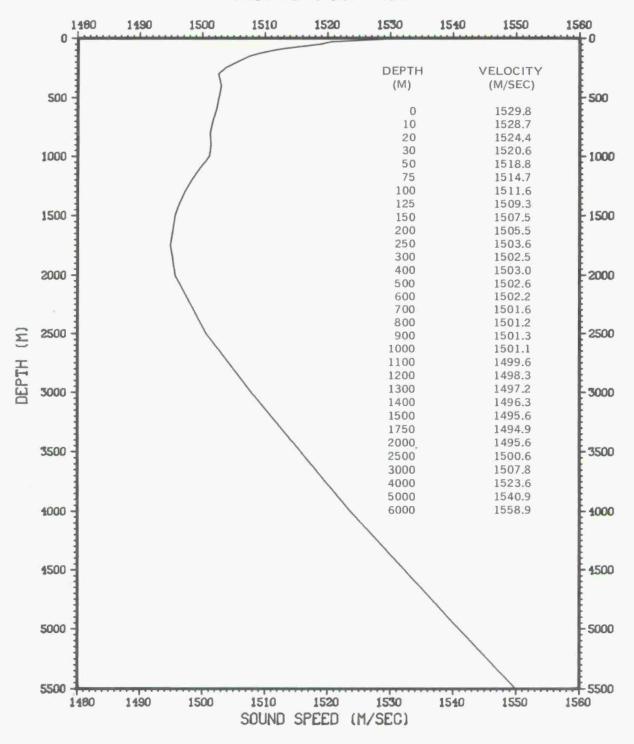
#### PROVINCE 4 JUN - SEP



# PROVINCE 4 OCT - NOV

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)			VELOC	ITY (H/	SEC)	
DEPTH (M)		MAX	MEAN	M1N	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM
		27.5	26.2	22.8	1.9499	5		35.7	35.5	35.3	.1483	5	 1541 • 1	1538.2	1529.8	4.7681	5
0		27.4	26.1	22.3	2 - 1256	5		35.7	35.5	35.2	.1871		 1541.2	1537.9	1528.7	5.2122	5
10		27.4	24.4	20.6	3 - 1413	5		35.7	35.5	35.2	.2074	5	 1541.3	1534.1	1524.4	7.8139	5
20	• •	27.3	23.5	19.1	4.0540	5		35.7	35.4	35.2	.1949	_	 1541.4	1531.7	1520.6	10.3628	5
		26.7	22.3	16.5	4.6824	5		35.8	35.5	35.3	.2121	5	 1540.5	1528.9	1513.3	12.3832	5
	• •	26.4	19.9	14.7	4.5440	5		35.7	35.5	35.3	.1483	5	 1540.2	1522.9	1508.3	12.3711	5
_	• •	26.2	18.5	14.0	4.7864	5		35.7	35.4	35.3	.1673	5	 1540.1	1519.3	1506.2	13.1717	5
	•	23.1	16.8	13.4	3.7727	5	• •	35.4	35.3	35.3	.0548	5	 1532.7	1515.1	1504.7	10.7942	5
125		21.1	15.7	13.2	3 • 1249	5		35.4	35.3	35.3	.0447	_	 1528.0	1512.1	1504.4	9.2411	5
200		18.4	14.2	12.8	2.3732	5		35.3	35.3	35.2	.0548	5	 1521.3	1508.3	1503.7	7.3812	5
	• •	16.1	13.2	12.0	1.6456	5		35.4	35.3	35.1	1140	_	 1515.4	1506.0	1501.8	5 . 4048	5
			12.5		1.0262	5		35.4	35.3	35.2	.0894	_	 1510.2	1504.3	1501.3	3.4658	5
300		14.2	11.3	10.9	• 2702	5		35.4	35.3	35.2	0707	_	 1503.0	1502.1	1500.2	1.0986	5
400		11.6	10.7	10.0	.4992	4		35.4	35.3	35.1	.1258		 1502.9	1501.5	1498.6	1.9782	4
500		10.5	10.3	10.1	.1708			35.4	35.3	35.3	.0500	4	 1502.4	1501.8	1500.8	.7118	4
600		10.5	10.0	9.8	• 3317			35.4	35.3	35.3	.0500		 1504.2	1502.5	1501.6	1.2038	4
700		10.0	9.5	9.3	.3304			35.4	35.3	35.2	.0816	- 4	 1504.0	1502.2	1501.2	1.2764	4
900		9.2	8.9	8.8	• 1732			35.4	35.3	35.2	.0816	4	 1502.9	1501.8	1501.3	.7572	4
1000		8.4	8.3	8 . 1	.1500			35.3	35.2	35.2	.0577	.4	 1501.4	1500.9	1499.9	.6652	4
1100		7.9	7.5	7 - 1	.3304			35.3	35.2	35.1	.0816	4	 1501.1	1499.5	1497.9	1.3074	4
1200		7.6	6.9	6.4	.5123	4		35.2	35 - 1	35.1	.0500	4	 1501.5	1498.6	1496.5	2.1030	4
1300		7.0	6.2	5.8	•5315			35.2	35.1	35.0	.0816	4	 1500.9	1497.7	1495.9	2.2015	14
1400		6.3	5.6	5.4	•4359	- 4		35.1	35.0	35.0	.0500	4	 1499.7	1496.8	1495.7	1.9209	4
		5.8	5.1	4.8	.4509			35.1	35.0	35.0	.0500	4	 1499.1	1496.4	1494.9	1.8500	4
1500		4.3	3.9	3.6	. 2986	. 4		34.9	34.9	34.9	.0000	14	 1497.1	1495.5	1494.2	1 . 2715	-4
2000		3.3	3.2	3.0	.1528	3		34.9	34.8	34.7	.1000	3	 1497 . 1	1496.4	1495.6	.7506	3
2500		2.3	2.3	2.3	•0000	_		34.8	34.7	34.7	.0707		 1501.3	1501.2	1501.1	. 1414	2
3000		1.9	1.9	1.9	.0000	1		34.7	34.7	34.7	.0000	_	 1508.2	1508.2	1508.2	.0000	1
-000					- 2000						A						

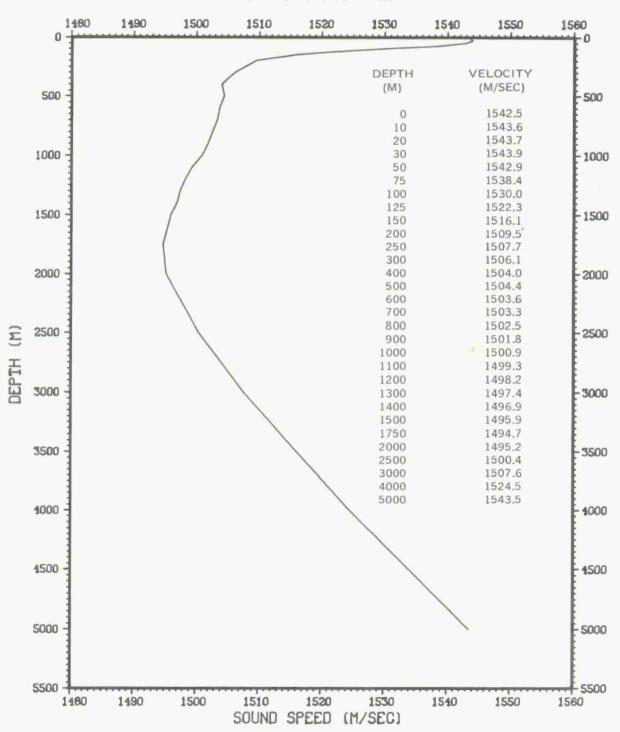
PROVINCE 4 OCT - NOV



### PROVINCE 5 DEC - FEB

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY IM/S	EC)	
DEPTH																		
( M )		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0 •		29.3	27.9	23.9	.7739	68	• •	36.6	35.4	32.2	.8111	68		1544.5	1541.8	1533.4	1.7219	68
10 •		28.8	27.9	23.9	.7546	68		36.6	35.5	32.3	.7799	68		1544.5	1542.0	1533.5	1.7539	68
20 •	•	29.3	27.9	23.9	.7722	68		36.6	35.5	32.7	.7296	68		1545.5	1542.2	1533.7	1.8107	68
30 •		28.9	27.8	23.9	.7911	68		36.6	35.7	33.6	.6367	68		1545.0	1542.3	1533.8	1.8049	68
50 •		28.6	27.3	23.9	1 . 1855	68		36.5	35 . 8	34.7	.4585	68		1545.0	1541.7	1534.0	2.6982	68
75 •	•	28.3	25.1	19.4	2.0407	68		36.5	35.7	34.9	.3651	68		1544.7	1537.0	1522.6	4.9518	68
100 •		28.0	22.6	18.5	2.3123	68		36.4	35.6	35.0	.3201	68		1544.2	1531.0	1520.6	5.8988	68
125 •		26.1	20.0	16.6	2.0837	68		35.9	35.4	35.1	.2187	68		1540.1	1524.6	1515.0	5.6202	68
150 •		24.8	17.9	14.8	1 . 8999	68		35.9	35.3	35.0	.1949	68		1537.4	1519.0	1509.5	5 - 4114	68
200 •		18.0	15.1	13.0	1.0929	68		35.8	35.3	35.0	.1638	68		1520.5	1511.4	1504.4	3.4636	68
250 •		16.4	13.7	12.3	.8953	67		35.7	35.3	35.0	.1404	67		1516.2	1507.7	1502.9	3.0072	67
300 •		15.2	12.8	11.2	.8293	67		35.6	35.3	35.0	.1423	67	• •	1513.4	1505.3	1500.1	2.8823	67
400 •		13.6	11.8	10.5	.7670	62		35.7	35.3	34.9	.1705	62		1509.6	1503.5	1498.8	2.7766	62
500 •		12.7	11.2	9.9	.6765	54		35.6	35.3	35.0	.1472	54		1508.7	1503.4	1498.5	2.5490	54
600 •		11.7	10.6	9 . 3	.6595	53		35.6	35.3	35.0	. 1515	53		1507.0	1502.8	1497.8	2.5319	53
700 •		11.0	9.9	8.7	.6368	52		35.6	35.3	35.0	.1445			1506.0	1501.9	1497.3	2.4720	52
800 •		10.5	9.2	8 • l	.6332	50		35.6	35.3	35.0	.1373	50		1506.0	1501+1	1496.6	2.4720	50
900 •		9.7	8.6	7 • 3	.5997	48		35.5	35.2	35.0	.1414	48		1504.9	1500.1	1495.1	2.4141	48
1000 •		8.9	7.9	6.9	.5536	48		35.4	35.2	35.0	.1280	48	• •	1503.5	1499.3	1495.1	2.2759	48
1100 •		8.3	7 . 3	6.3	.5068	48	• •	35.4	35 • 1	34.9	.1129	48		1502.6	1498.4	1454.6	2.0757	48
1200 •		7.5	6.6	5 . 7	.4615	48		35.3	35 • 1	34.9	.0962	48	• •	1501.3	1497.5	1493.7	1.9038	48
1300 •		6.7	6.0	5.2	.4104	47		35.2	35.0	34.9	.0865	47		1499.6	1496.7	1493.3	1.6993	47
1400 .		6.1	5.5	4 . 8	.3549	46		35.2	35.0	34.8	.0785	46		1498.4	1496.0	1493.1	1.4920	46
1500 •		5.5	4.9	4.3	.3257	46		35.1	34.9	34.8	.0774	46		1497.5	1495.4	1442.8	1.3419	46
1750		4.3	3.7	3.3	.2867	32		35.0	34.9	34.8	.0567	32		1497.2	1494.6	1492.8	1.2207	32
2000 •		3 . 4	2.9	2.0	. 2750	26		35.4	34.8	34.8	.1501	26		1497.5	1495.2	1491.4	1.1804	26
2500 •		2.3	2.1	2.0	.0870	13		34.8	34.8	34.6	.0660	13		1501.3	1500.5	1500.0	.3602	13
3000 •	0	1.9	1.8	1.7	.0641	8		34.8	34.7	34.6	.0744	8		1507.9	1507.6	1507.4	.1727	8
4000 •	•	1 . 7	1 . 7	1 • 7	•0000	2	• •	34.8	34.7	34.7	.0707	2		1524.7	1524.6	1524.6	.0707	2

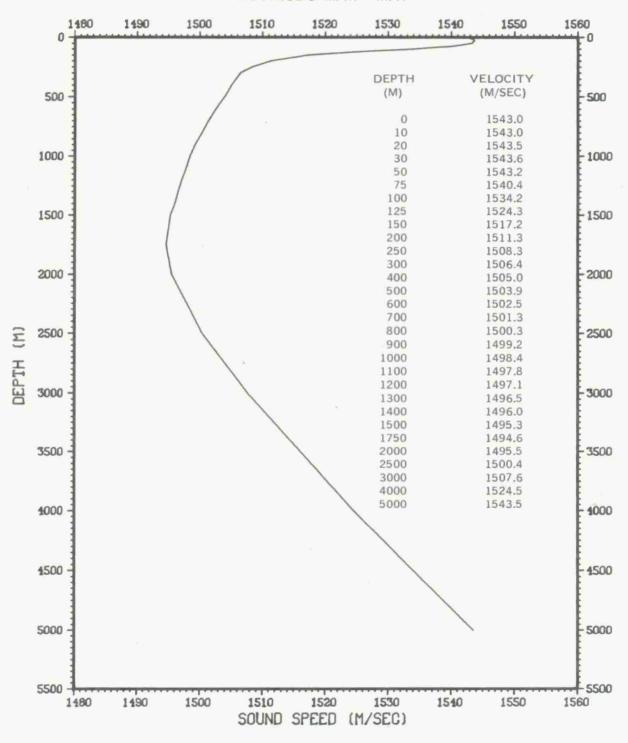
#### PROVINCE 5 DEC - FEB



### PROVINCE 5 MAR - MAY

	TEMPERATURE (C)								LINITY	(PPT)			VELOCITY (H/SEC)					
DEPTH			MEAN	9 %	er beu	hiller	May	= A N	Man		b. 1166	HAX	MEAN	MIN	ST DEV	.N		
\$ PE 3		MAX	MEAN	MIN	ST DEV	NUM	MAX	HEAN	MIN	ST DEV	NUM	TAA	HEAN	1.14	SI DE	P		
0		30.5	28.9	25.8	1 - 2510	75 • •	36.5	35.3	33.8	.6341	75 •	1548.1	1543.9	1537.9	2.5742			
10		30.4	28.8	25.6	1.2222	75	36.5	35.3	33.8	.6333	75 •	1547.7	1543.9	1537.8	2.5333			
20		30.2	28.7	25.2	1 . 2495	75	36.4	35.4	34.1	.6129	75 .	1547.8	1543.8	1536.9	2.5484			
30		29.9	28.4	25 . 1	1.2243	75	36.4	35.5	34.3	.5893	75 .	1547.3	1543.6	1536.9	2.4862			
50		29.4	27.4	24.2	1.1528	75 00	36.5	35.7	34.5	.5032	75 .	1545.9	1541.9	1534.2	2.3860			
75		28.2	26.0	22.9	1.2930	75 ••	36.4	35.9	35.2	.3476	75 .	1543.8	1539.2	1531.3	2.9626			
100		27.1	23.5	20.1	1.6988	75	36.4	35.8	35.0	. 3455	75 •	1542.5	1533.8	1524.7	4.4092			
125		24.4	20.5	17.4	1.6507	75	36.2	35.6	35.1	.2701	75 •	1536.9	1526.2	1517.2	4.6574			
150		22.3	18.0	15.1	1.5553	75	36.0	35.4	35.1	.2232	75 •	1531.8	1519.5	1510.3	4.6824			
200		18.4	15.2	13.1	1 . 2443	75	35.9	35.3	35.1	.1947	75 •	1521.8	1511.8	1504.6	4.0515			
250		16.2	13.8	12.2	1.0206	75	35.9	35.3	35.1	.1979	75 .	1516.3	1507.9	1502.2	3.5250			
300		15.2	12.8	11.5	.9048	75	35.8	35.3	35.1	.1966	75 .	1513.7	1505.4	1500.7	3.2190			
400		13.8	11.6	10.5	.7487	75	35.8	35.3	35.0	.1804	75 .	1511.1	1503.2	1498.8	2.8012			
500		12.4	11.0	9.8	.6535	75	35.6	35.3	35.1	.1636	75 .	1507.9	1502.5	1498.0	2.4873			
600		11.7	10.4	9.3	. 6554	75	35.6	35.3	35.1	.1543	75 •	1507.2	1502 . 1	1497.7	2.5331			
700	0.0	11.1	9.8	8.7	.6631	75	35.6	35.3	35.1	.1590	75 •	1506.5	1501.4	1497.2	2.5881			
800		10.4	9 . 1	8.0	.6734	75	35.6	35.3	35.1	.1489	75 •	1505.6	1500.6	1496.3	2.6984			
900		9.8	8.5	7 . 4	.6623	75	35.5	35.2	35.0	.1435	75 .	1505.1	1499.8	1495.5	2.6679			
1000		9.0	7 . 8	6.8	.6258	73 ••	35.5	35.2	35.0	.1302	73 •	1503.9	1498.8	1494.9	2.5534			
1100		8 . 6	7.2	6.3	.5639	73	35.5	35.1	35.0	.1158	73 .	1504.1	1498.0	1494.3	2.3366			
1200		7.5	6.5	5.8	. 4485	61 00	35.3	35.1	34.9	.0878	61 .	1501.0	1497.2	1494.2	1.8844			
1300		6.8	6.0	5.3	. 3936	61	35.2	35.0	34.9	.0811	61 .	1499.9	1496.5	1493.9	1.6370			
1400		6 . 1	5.4	5.0	. 3403	46	35.1	35.0	34.9	.0755	46 .	1498.6	1496.0	1493.9	1.4383			
1500		5.4	4 . 9	4 . 4	.2832	46	35.0	34.9	34.9	.0506	46 .	1497.5	1495.2	1493.2	1.2176			
1750		4.2	3.7	3.4	.2168	41	35.0	34.9	34.8	.0617	41 .	1496.9	1494.6	1493.1	. 9750			
2000		3.4	2.9	2.6	. 1666	32 00	35.0	34.8	34.8	.0492	32 •	1497.6	1495.5	1494.2	. 4965			
2500		2.4	2.1	2.0	.1014	27	34.9	34.8	34.8	.0267	27 .	1501.8	1500.5	1499.8	. 4351			
3000		2.0	1.8	1 . 7	.0588	26	34.9	34.7	34.7	.0491	26 .	1508.5	1507.7	1507.4	. 2573			
4000		1.8	1 + 7	1 . 6	.0599	13	34.9	34.7	34.7	.0768	13 .	1525.2	1524.6	1524.2	. 2577			
IGNORE	D -	IN CO	NTROL	MODE														

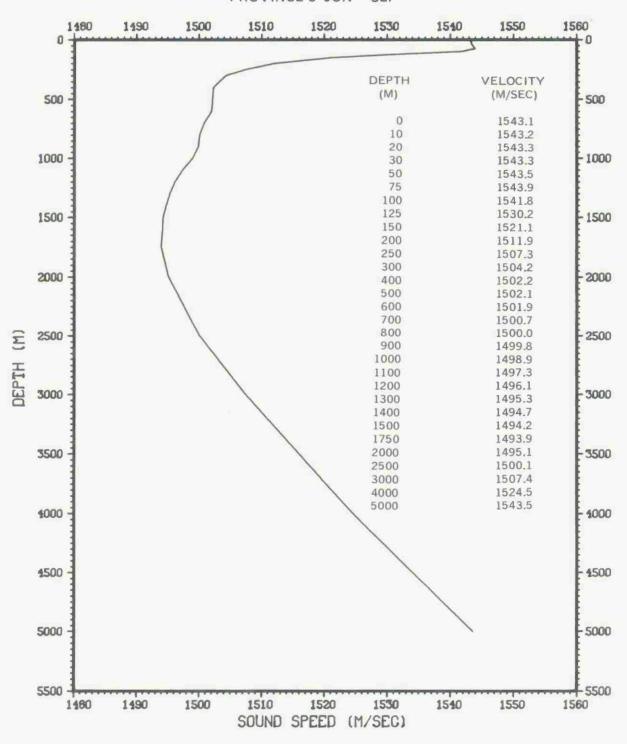
#### PROVINCE 5 MAR - MAY



# PROVINCE 5 JUN - SEP

				TEMP	ERATUR	E (C)			5/	LINITY	(PPT)		VELOCITY (M/SEC)					
	DEPTH																	
	( M )		MAX	MEAN	MIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM	HAX	MEAN	MIN	ST DEV	NUM	
	0		30.0	28.3	23.5	1.0633	66	36.6	35.8	33.6	.5350	66	1546.3	1543.1	1532.0	2.2825	66	
	10		29,5	28.2	23.5	. 9898	66	36.6	35.8	34.5	.4862	66	1546.0	1543.0	1532.1	2.1648	6.6	
	20		29.2	28 . 1	23.4	.9833	66	36.7	35.9	34.8	.4640	65	1545.7	1543.2	1532.2	2.1277	66	
	30		29.1	28.1	23.3	.9676	66	36.8	35.9	34.9	.4653	66	1545.5	1543.2	1532.1	2.0822	66	
	50		29.0	27.5	21.3	1 . 2153	66	36.7	36.0	35.0	.4215	66	1544.9	1542.5	1527.4	2.7529	66	
	75	• •	28.4	25.9	18.9	2.2570	66	36.7	36.0	35.1	.3682	66	1544.8	1539.0	1521.0	5.6193	66	
	100		27.0	23.1	17.4	2.7227	66	36.5	35.8	35.1	.3760	66	1542.5	1532.4	1516.7	7.2363	66	
	125		26.5	20.2	15.6	2 . 5 6 4 4	66 00	36.5	35.6	35.0	.3200	66	1541.6	1525.1	1511.3	7.1737	66	
	150		24.6	18.0	14.5	2.3667	66	36.1	35.5	35.0	. 2675	66 00	1537.6	1519.2	1508.2	6.9454	66	
	200	• •	20.9	15.2	13.2	1.5331	66	35.7	35.4	35.1	. 1816	66	1528.8	1511.7	1505.0	4.8854	66	
	250	0.0	17 . 1	13.7	12.2	1.0635	66 00	35.7	35.3	35,1	.1638	66	1518.7	1507.8	1502.4	3.5971	66	
	300	0.0	14.8	12.7	11.5	.8260	65 .	35.7	35.3	35.1	.1570	65	1511.9	1505.2	1500.7	2.9023	65	
	400		12.8	11.6	10.5	.5931	59 **	35.6	35.3	34.9	. 1569	59	1507.6	1502.9	1498.8	2.2511	59	
	500		12.2	10.9	10.1	.5603	49	35.7	35.3	35.1	.1573	49	1507.2	1502.2	1499.0	2.1635	49	
	600		11.7	10.3	9 . 4	.5809	49 00	35.7	35.3	35.0	.1567	49	1507.2	1501.6	1498.2	2.2830	49	
	700		11.2	9.6	8.6	.5928	49	35.6	35.3	35.0	.1480	49	1507.0	1500 . 7	1496.7	2.3763	49	
	800		10.6	8 . 9	7 . 7	.6157	48	35.6	35.2	35.0	.1417	48	1506.5	1499.7	1495.2	2.4330	48	
	900		9.9	8.2	7.0	. 6234	47 00	35.5	35.2	35.0	.1339	47 • •	1505.5	1498.7	1493.9	2.5047	47	
	1000		8 . 7	7.5	6 . 5	.5329	45	35.4	35 . 1	35.0	.1097	45	1502.6	1497.6	1493.6	2.1668	45	
	1100		8.2	6.9	6.0	.4740	45 .	35.3	35 . 1	34.9	.0968	45	1502.1	1497.0	1493.4	1.9345	45	
	1200	0.0	7.6	6.3	5 . 5	.4219	43	35.3	35.0	34.9	. 0856	43 • •	1501.4	1496.2	1493.0	1.7437	43	
	1300		6.9	5.7	5.0	. 3916	41 **	35,2	35.0	34.9	.0775	41	1500.4	1495.5	1492.7	1.6479	41	
	1400		6.3	5.2	4.7	. 3736	38	35.1	35.0	34.8	.0683	38	1499.6	1495.0	1492.8	1.5484	38	
	1500		5.9	4.7	4 . 2	.3747	33	35.1	34.9	34.8	.0584	33 ••	1499.7	1494.4	1492.5	1.5722	33	
	1750		4 . 6	3.6	3.3	. 2914	29 **	34.9	34.8	34.8	.0501	29 ••	1498.1	1493.9	1492.6	1.2543	29	
	2000		3.3	2.8	2.6	.1441	25	34.9	34.8	34.7	.0289	25 • •	1496.9	1494.9	1493.9	.5992	25	
	2500		2 . 3	2.1	2.0	.0899	22	34.8	34.8	34.7	.0213	22	1501.3	1500.3	1499.8	.3672	22	
	3000		1.9	1.8	1.7	.0384	21 **	34.7	34.7	34.7	.0000	21	1507.9	1507.5	1507.1	.1700	21	
	4000		1 . 7	1.7	1.6	.0483	10	34.7	34.7	34.7	.0000	10	1524.6	1524.4	1524.3	.0972	10	
DATA	IGNORE	0 -	IN CO	NTROL	HODE													

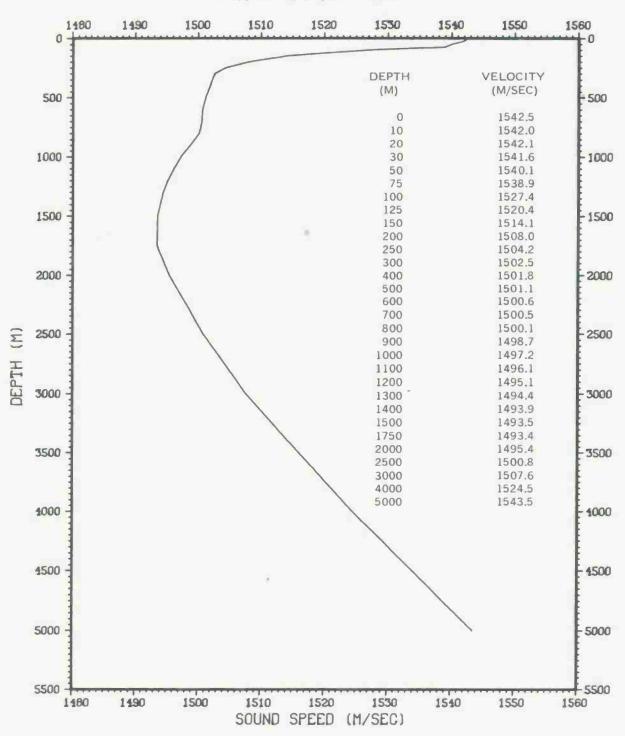
#### PROVINCE 5 JUN - SEP



# PROVINCE 5 OCT - NOV

	TEMPERATURE (C)								SA	LINITY	(PPT)		VELOCITY (M/SEC)					
DEPTH																		
( M )		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0		29.1	28.1	26.8	. 4683	78		36.6	36.0	34.9	.3783	78		1545.3	1542.9	1539.6	1.0768	78
10		29.2	28.1	26.9	.5108	78		37.2	36.1	35.1	.3581	78		1545.6	1543.1	1540.5	1.1610	78
20		29.1	28.0	24.1	.6653	78		37.1	36.1	35.2	. 3367	78		1545.8	1543.1	1533.7	1.5835	78
30		29.0	27.9	20.3	1.0078	78		36.9	36.1	35.3	.3068	78		1545.8	1543.0	1524.2	2.4722	78
50		28.9	27.0	16.8	1.5618	78		36.7	36.1	35.3	. 3256	78		1545.9	1541.5	1514.5	3.9820	78
75		27.7	24.4	15.8	2.0231	78		36.5	35.9	35.3	. 2995	78		1543.7	1535.6	1511.8	5.2328	78
100		25.3	21.2	15 . 1	2 - 1406	78		36.3	35.6	35.1	. 2697	78		1538.6	1527.6	1510.0	5.8880	78
125		24.0	18.7	14.4	1.7861	78		35,9	35.4	35.0	. 2085	78		1535.2	1521.1	1508.3	5.1374	78
150		22.7	16.9	13.9	1.6107	78		35.8	35.4	34.9	. 1966	78		1532.5	1516.0	1507.0	4.8072	78
200		19.3	14.5	11.8	1.2015	78		36.2	35.3	34.9	.2184	78		1524.1	1509.5	1500.3	3.8759	78
250		16.1	13.3	11.2	.8601	72		36.2	35.3	35.1	.1818	72		1515.5	1506.2	1499.1	2.9590	72
300		14,2	12.3	10.8	.6642	72		36.3	35.3	35.1	.1758	7.2		1511.5	1503.8	1498.5	2.4167	72
400		12.7	11.3	10.5	.4713	67		35.8	35.2	35.1	.1374	67		1507.0	1502.0	1499.0	1.7731	67
500	9.0	11.6	10.6	10.0	.3908	50		35.5	35 . 2	35.1	.1075	50		1504.9	1501.2	1498.7	1.4808	50
600		11.1	10.0	8 . 6	. 4765	49		35.5	35.2	35.0	. 1144	49		1504.7	1500.7	1495.0	1.8116	49
700		10.5	9.4	7.9	.5292	49		35.5	35.2	35.0	.1124	49		1504.2	1499.7	1494.3	2.0319	49
800		9 , 8	8.7	7 . 5	.5216	49		35,5	35 . 1	35,0	,1191	49		1503.4	1499.0	1494.3	2.0619	49
900		9.1	8 . 1	6.9	.5322	48		35,4	35 . 1	35.0	.1099	48		1502.3	1498.1	1493.6	2.1032	48
1000		8.5	7.5	6 . 4	.5218	48		35.3	35 . 1	34.9	.1026	48		1501.5	1497.4	1493.1	2 - 1151	48
1100		7.8	6.9	5.7	.4829	46		35.3	35.0,	34.9	.0920	46		1500.3	1496.7	1491.8	1.9955	46
1200		7.2	6.3	5.3	.4430	46		35.2	35.0	34.8	.0954	46		1499.5	1496.1	1492.0	1.8210	46
1300		6.3	5.8	5.0	.3603	45		35.1	35.0	34.8	.0843	45		1497.9	1495.6	1492.6	1.5105	45
1400		6.1	5.3	4 . 6	.3319	45	0 0	35.1	34.9	34.8	.0684	45		1498.4	1495 . 2	1492.5	1.3918	45
1500		5.9	4.8	4.2	.3377	45		35.0	34.9	34.7	.0757	1 40		1499.5	1494.8	1492.5	1.3950	45
1750		4 . 0	3.6	3.3	. 1835			35.0	34.8	34.7	.0614	-		1495.8	1494.1	1492.8	.7905	39
2000		3.0	2.8	2.6	.1095	35	• •	34.9	34.8	34.7	.0550		• •	1495.9	1495.0	1493.9	.4753	35
2500		2.6	2.1	1 . 9	. 1540	27		34.9	34.8	34.7	.0580			1502.3	1500.4	1499.3	.6402	27
3000		2.1	1.8	1.7	.0928	21		34.8	34.7	34.6	. 0561	0		1509.0	1507.6	1507.1	.4516	21
4000		1 . 7	1.6	1.6	.0577	3		34.7	34.7	34.7	.0000	3		1524.5	1524.3	1524.1	.2082	3
DATA IGNORE	D -	IN CO	NTROL	HODE														

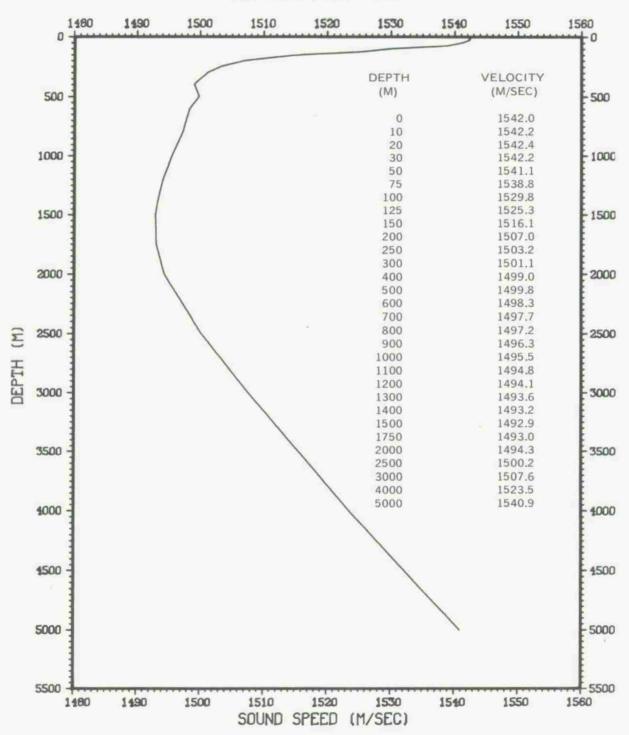
#### PROVINCE 5 OCT - NOV



# PROVINCE 6 DEC - FEB

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)			VELOCITY (M/SEC)						
DEPTH																				
(H)		MAX	HEAN	MIN	ST DEV	NUM		MAX	MEAN	HIN	ST DEV	NUM		HAX	HEAN	HIN.	ST DEV	NUM		
0	• •	28.6	28 • 1	27.6	. 3552	7		35.3	35.0	34.6	. 2795	7	• •	1543.1	1541.8	1540.3	. 9144	7		
10		28.5	29.0	27.5	.3457	7		35.3	35.0	34.6	. 2795	7		1543.2	1541 . 7	1540.3	. 8655	7		
20		28 . 5	27.8	26 . 4	.7020	7 '		35.3	35.0	34.7	. 2637	7		1543.3	1541 . 4	1538.6	1 . 5438	7		
30		28 . 4	27.3	24.7	1.2130	7		35 . 4	35.1	34.8	.2478	7		1543.4	1540 . 7	1534.9	2 . 740 9	7		
50		28.2	26.2	21.5	2 - 1718	7		35.5	35.2	35.0	.1718	7		1543.3	1538.6	1527 . 1	5 . 2595	7		
75		27.0	24 • 1	18.5	2.9585	7 4		35.4	35.3	35.2	.0900	7		1540 . 9	1534.1	1519.4	7 . 4837	7		
100		23.3	20.2	15.5	2.6642	7 4	0 0	35.4	35.3	35 - 1	.1113	7		1532 . 8	1524.4	1510.7	7.5167	7		
125		20.3	17.8	14.6	2.1569	7		35.3	35.2	35 . 1	.0787	7		1525.3	1518.1	1508.2	6.4440	7		
150		17-1	15.9	13.8	1.4829	7		35.3	35.2	35 • 1	.0577	7		1516.5	1512.8	1505.9	4 - 7246	7		
200		15.4	14.3	12.4	1.1238	7		35.3	35.2	35.0	.0976	7		1512-1	1508.5	1502.0	3.7660	7		
250		13.9	12.8	1107	.8602	7 1		35.2	35.1	35.0	.0816	7		1508 . 2	1504 . 4	1500 . 4	2 . 9391	7		
300		12.3	11.8	11.0	.5014	7 (		35.1	35.1	35.0	.0488	7		1503.4	1501 . 7	1498.8	1 . 8493	7		
400		11.3	10.6	9.7	.5345	7 4		35	35.0	34.9	.0900	7		1501.6	1499.2	1495.5	2 . 0 6 8 4	7		
500		10-4	10.0	8.9	.5440	7 4		35.1	35.0	34.8	.1155	7		1500 - 2	1498.6	1494.3	2 - 1900	7		
600		9.9	9 . 4	7.9	.7081	7		35.2	35.1	34.8	.1380	7		1500.0	1498.1	1492.0	2 . 8 6 7 6	7		
700		9 . 6	8.9	7 . 6	.6499	7		35.3	35.1	34.8	.1676	7		1500 . 7	1497.9	1492.7	2 . 6285	7		
800	0 0	8 . 7	8 . 2	7 . 2	.5178	7 (	0 0	35.2	35,1	34.9	1155	7		1498.8	1496.9	1493.0	2.0313	7		
900		8 . 1	7.6	6 . 7	. 4756	7 1		35.2	35.1	34.9	.0976	7		1498 . 1	1496+1	1492.6	1.9313	7		
1000		7 - 3	6.9	6 . 3	. 3764	6		35 . 1	35.0	34.9	· D816	6		1496 . 7	1495.1	1492.5	1.5769	6		
1100		4 . 8	6 . 4	6.0	. 2858	6		35.1	35.0	34.9	.0753	6		1496.5	1494.9	1492.9	1 - 3064	6		
1200		4 . 3	5 . 9	5.6	. 2828	6		35.0	35.0	34.7	.0516	6		1495 . 9	1494.5	1493.3	1.0482	4		
1300		5 . 6	5.3	5.2	.1643	6		35.0	34.9	34.9	.0514	6		149407	1493.9	1493.1	.6282	6		
1400		5 . 0	4 . 9	4 . 8	.0894	5		34.9	34.9	34 . 9	.0000	5		1494.2	1493.4	1493.0	. 4712	5		
1500		4 . 6	4 . 4	4 . 3	. 1304	5		34.9	34.9	34.8	.0447	5		1473.9	1493.2	1492.6	.5225	5		
1750		3 . 6	3 . 4	3 . 3	.1291	4 (		34.8	34.8	34.8	.0000	4		1494 - 1	1493.4	1492.9	.5500	4		
2000		2 . 8	2.7	2.6	.1000	3		34.8	34.8	34.8	.0000	3		1494.7	1494.4	1493.9	. 4359	3		
2500		2.0	2 • 0	2.0	.0000	2		34.7	34.7	34.7	.0000	2		1500.0	1499.9	1499.8	.1414	2		
3000		1 . 8	1 . 7	1 • 7	.0707	2		34.7	34.7	34.7	• 0000	2		1507.5	1507 . 4	1507.3	.1914	2		
4000		1.5	1.5	1.5	.0000	1		34.7	34.7	34.7	.0000	1		1523.5	1523.5	1523.5	.0000	-1		

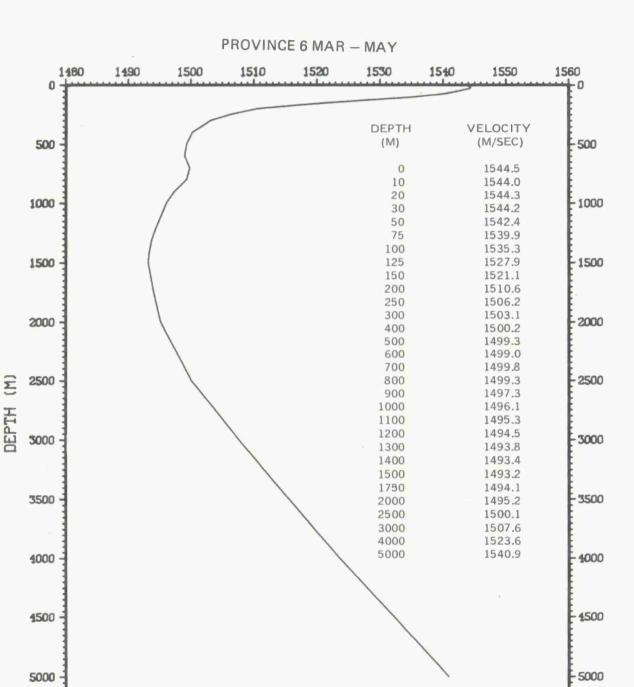
#### PROVINCE 6 DEC - FEB



### PROVINCE 6 MAR - MAY

والمعاملة والمناسب والمناسبة والمناس

	TEMPERATURE (C)								SA	LINITY	(PPT)			VELOCITY (M/SEC)						
DEPTH (M)		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	HIN	ST DEV	NUM		HAX	MEAN	HIN	ST DEV	NUM		
0	• •	30 • 9	29 • 1	27.7	.5292	100	• •	35.5	35.0	34.2	• 2511	34	• •	1547 · A	1544.0	1541 • 2	1 • 1 3 7 8	34		
10	• •	29.7	29.0	27 • 7	.4351		• •	35.5	35.0	34.3	. 2428	34	• •	1545.5	1543.9	1541.5	. 9273	34		
20	• •	29.7	28 . 9	27+5	.4292	-	• •	35.5	35.1	34.4	. 2453	34	• •	1545.3	1543.9	1541 - 2	.9159	34		
30		29.8	28.7	27 • 0	.5214		• •	35.6	35.1	34.5	. 2478	34	• •	1545.3	1543.7	1540.3	1.0594	34		
50		28.9	27 . 9	26.3	.7288	3 1	• •	35.7	35.3	34.9	.2379	34		1544.6	1542.5	1539.3	1 - 4644	34		
75		28 . 2	26.3	23.2	1.2822	34	• •	36.3	35.5	35.1	.2437	34		1543.8	1539.5	1532.1	3.0228	34		
100		26.6	23.4	18.0	1.8982	34		35.9	35.5	35.1	-1793	34		1541 - 2	1532.9	1518.6	4.8950	3 4		
125		23.3	20 • 1	16.1	1.7242	34	• •	35.7	35.4	35.2	.1268	34		1533.2	1524.6	1513.0	4.8439	34		
150	0.0	20 . 3	17 . 6	13.6	1.3803	34	• •	35.5	35.3	35.2	.0793	34	• •	1526 1	1518.0	1505.6	4 - 1794	34		
200		16.2	1406	12.9	.7696	34		35.4	35.2	35.1	.0576	34		1514.7	1509.6	1504.0	2.4752	34		
250		14.1	13.0	11 . 8	.5320	34		35.3	35.2	35.0	.0666	34	• •	1509.0	1505 - 1	1500 . 8	1 . 8549	34		
300		12.9	11.9	10.9	. 4233	34		35.2	35.1	35.0	.0606	34		1505 . 8	1502 - 1	1498.6	1 . 5 1 3 0	34		
400		11 - 4	10.8	10.1	. 2900	34 4		35.2	35.1	35.0	.0591	34		1502.0	1500.0	1497.4	1.0609	34		
500		10.7	10.2	9 . 5	. 2870	34 4		35.2	35.1	35.0	.0626	34		1501 - 3	1499.5	1496.8	1.0983	34		
600		10.4	9 . 8	8 . 9	.3358	34		35.3	35.1	35.0	.0743	34	• •	1502 - 1	1499.5	1496.1	1 . 2839	34		
700		9 . 8	9.2	8.3	. 2904	34 4		35 . 3	35.2	35.0	.0719	34		1501 . 6	1499.3	1495 . 4	1 . 1776	3.4		
800		9.0	8 . 6	7 + 7	. 2985	34 4	0 0	35.3	35.1	35.0	.0748	34		1500 . 2	1498.4	1495.1	1 - 1 - 23	34		
900		8 . 6	7.9	7 . 3	.2743	34		35.2	35.1	35.0	.0570	34		1500 - 4	1497.5	1495.2	1 - 1239	-34		
1000		7.9	7 . 2	6.6	. 2908	34		35.2	35.1	34.9	.0592	34		1499.3	1496 . 4	1493.8	1 . 1877	34		
1100		7 . 3	6 . 6	6.0	. 3212	33		35.2	35.0	34.9	.0684	33		1498 . 6	1495 . 6	1493.3	1 . 3373	33		
1200		6 . 6	6 . 1	5 . 5	. 2777	20	• •	35.1	35.0	34.9	.0447	20		1497.5	1495 - 1	1492.9	1 - 1712	20		
1300		6 . 0	5 . 5	5 - 1	. 2434	20		35.0	35.0	34.9	.0503	20		1496 . 5	1494.6	1492.9	. 9819	20		
1400		5 . 5	5.0	4 . 7	.2274	15		35.0	34.9	34.8	.0458	15		1496.0	1494.0	1492.8	.9022	15		
1500		4 . 8	4 . 5	4 . 3	. 1656	15		34.9	34,9	34.8	.0352	15		1495 . 1	1493.5	1492.7	.7424	15		
1750		3 . 7	3 . 5	3.2	. 1589	15		34.9	34.8	34.8	.0414	15		1494.5	1493.5	1492.2	. 6700	15		
2000		3.0	2 . 8	2 . 6	-1027	14		34.8	34.8	34.8	.0000	14		1495.9	1494.8	1494.0	. 4995	1.4		
2500		2 . 2	2 • 1	2.0	.0535	14 4		34.8	34.8	34.7	.0469	14		1500.6	1500 . 2	1499.8	. 2392	1.4		
3000		2.0	1 . 8	1 . 8	.0622	12	0.0	34.8	34.7	34.7	.0389	12		1508.5	1507 . 7	1507.4	. 2843	12		
4000		1.5	1 . 5	1 . 4	.0516	6		34.7	34.7	34.7	.0000	6		1523.8	1523.6	1523.5	.1095	6		



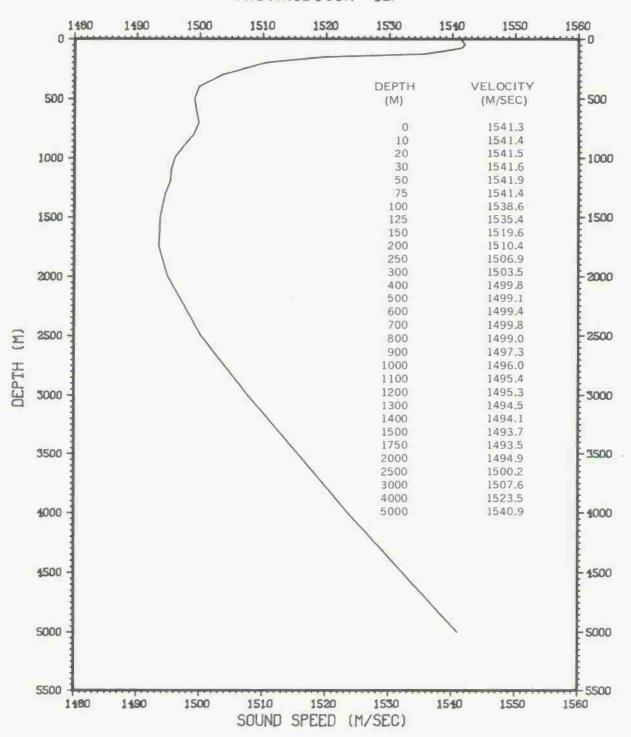
SOUND SPEED (M/SEC)

**-5500** 

# PROVINCE 6 JUN - SEP

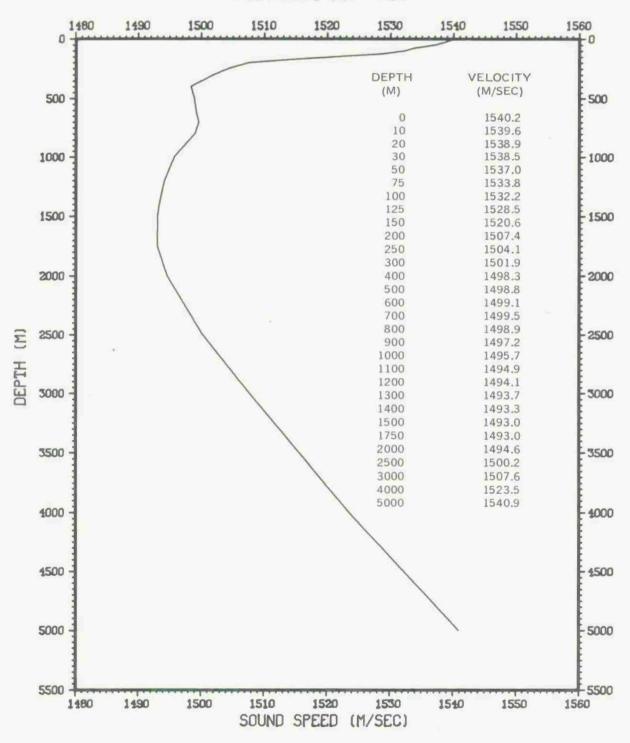
		TEMP	ERATUR	E (C)				SA	LINITY	(PPT)		VELOCITY (M/SEC)					
DEPTH																	
( M )	MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUH		MAX	MEAN	MIN	ST DEV	NUM
	 .0.5	27.0	25.0	1.1860	34		35.9	35.4	34+8	• 2339	3.4		1544 • #	1539.8	1535.5	2.5562	34
10	 29.5	27.0	25.0	1.1732	34	• •	35.9	35.3	34.9	.2178	34	• •	1544.9	1537.8	1535.7	2.5122	34
20	29.3	26.9	24.9	1 - 1586	34		36.0	35.4	34.9	. 2281	34		1545.0	1539.9	1535.3	2.5122	34
30	29.2	26.8	24.4	1.1949	34		36.0	35.4	34.9	.2270	34		1544.9	1539.8	1534.3	2.5876	34
50	28 . 9	26.4	21.8	1.4837	34		36.0	35.4	34.9	.2185	34		1544.6	1539.3	1528.2	3.4260	34
75	27 . 8	25.4	18.6	1.9420	34		36.0	35.4	35 • 1	. 1800	34		1543 - 1	1537.4	1519.9	4.8094	34
100	27.1	23.5	17.5	2.7094	34		35.9	35.5	35.2	. 1875	34		1542 • 3	1533.1	1517.2	7.0291	34
125	25 • 4	20.9	15.4	3.1311	34		35.9	35.4	35.2	. 1633	34		1538.7	1576.8	1511.2	8.5629	34
-			13.8	3.0836	34		35.8	35.3	35.1	• 1513	34	• •	1535.6		1506.6	8 . 7845	34
150	24.0	18.7	-		34		35.4	35.2	35 • 1		34	• •	1523.7	1520.9	1504.6	5.5986	34
200 250	19.3	15.2	13.0	1.8066	34		35.4	35.2	35.1	·0710	34	• •		1511.6	-	3.2149	34
300	15.3	13.3		.6634	_		35.4	35.1				• •	1512 • 7	1506.3	1500 • 8	2 • 2 9 6 8	34
400	13.6	12.2	11.2	4179	34		35.4	35.1	35.0	· 0843		• •	1508.0	1503.1	1497.6	1.5205	34
	11.8	10.9	9.6	.2657			35.3		_				1503 • 4	1500 - 1			
600	10.5	10.1	8 . 8	.3418	34		35.3	35.1	34.9	0925	34		1500 • 6	1499.0	1497.0	. 9943	34
700	9 . 8	9.6	8 . 2		34		_	35.1	34.9	0969	34	• •	1501 • 4	1498.9	1495.6	1 . 3 6 4 1	34
		9 • 1		.3998	34	• •	35.3	35.1	34.9	.0954	34	• •	1501 • 2	1498.9	1495 • 2	1.5441	34
800	9 • 1	8 . 5	7 . 7	. 3652	3 4		35.3	35.1	34.9	0922	34	• •	1500.5	1498.0	1494.7	1.4673	34
900	8 • 4	7.8	6 . 8	. 3896	34		35.2	35.1	34.9	.0830			1499.5	1497.0	1493.0	1.6123	34
1000	8 . 0	7 . 2	6 • 1	. 3801	32		35.2	35.1	34.8	.0759	32		1499.7	1496 2	1491 . 8	1.5628	32
1100	7 . 2	6.6	5 • 4	. 3782	30		35.1	35.0	34.8	.0817	30		1498.1	1495.6	1490 • 5	1.6162	30
1200	6 . 7	6 - 1	5.5	. 2774	24		35.1	35.0	34.9	.0590	24		1497.9	1495.3	1492.9	1 - 1 688	24
1300	6.0	5 . 5	5.0	- 28 10	22		35.1	35.0	34.9	.0581	22		1496.5	1494.5	1492.4	1.1865	22
1400	5 • 4	5.0	4 - 4	. 2689	22		35.0	34.9	34.8	.0588	22		1495 . 8	1494.1	1491.6	1 - 1596	22
1500	4.9	4.5	4.0	.2256	21		35.0	34.9	34.8	.0498	21	• •	1495.5	1493.7	1491.5	1.0062	21
1750	3 . 8	3.5	3 • 1	.1895	21		34.9	34.8	34.8	.0436	21		1494.7	1493.5	1491.9	.8261	21
2000	3 + 0	2.8	2 . 6	.1284	21		34.8	34.8	34.8	.0000	21	• •	1495.7	1494.9	1493.8	.5912	21
2500	2 . 3	2 • 1	2.0	.0775	21		34.8	34.8	34.7	.0436	21		1501 . 2	1500.3	1499.7	.3554	21
3000	 1 . 8	1 . 8	1 . 7	.0410	20		34.8	34.7	34.7	.0366	20		1507 . 8	1507.5	1507.3	. 1504	20
4000	 1 . 5	1 . 4	1 . 4	.0493	17		34.7	34.7	34.7	.0000	17		1523.8	1523.5	1523.2	.1458	17
5000	 1 . 3	1 . 3	1 . 3	.0000	2		34.7	34.7	34.7	.0000	2		1540 . 9	1540.8	1540.8	.0707	2

#### PROVINCE 6 JUN - SEP



			TEMP	ERATUR	F (C)			SA	LINITY	(PPT)				VELOC	ITY (H/S	ECI	
DEPTH (M)		MAX	HEAN	MIN	ST DEV	NUM	HAX	HEAN	MIN	ST DEV	NUM		HAX	HEAN	HIN	ST DEV	NUM
0	••	27.5	27.1	26.8	. 4950	2 *		35.5	35.4	. 1414	2	• •	1541 • 1	1540 • 2	1539.4	1 - 2021	2
		27.0	26.8	26.6	. 2828	2 .		35.4	35.4	.0000	2		1537.0	1538.9	1538.8	.1414	2
20		26.5	26.5	26 . 4	.0707	2 .		35,4	35.4	.0000	2		-		1538 . 2	. 4243	2
30	• •	26.3	26.1	26.0	.2121	2 •	. 35.5	35.4	35.4	.0707	2	• •	1538.8	1538.5	1535.9	1 . 5556	2
50	• •	25.9	25.4	24.9	. 7071	2 .	. 35.4	35.4	35.4	.0000	2	• •	1538.1	1537.0		. 9899	2
75	• •	24.2	23.9	23.6	. 4243	2 .	. 35.4	35.3	35.3	.0707	2	• •	1534.5	1533.8	1533.1	1 . 97 99	2
-		_	23 • 1	22.5	. 8485	2 •	. 35.4	35.3	35.3	• 0707	2		1533.6	1532.2	1530.8		
100		23.7	-	20 • 2	1.8385		. 35.4	35.3	35.3	.0707	2		1531.7	1528.5	1525.3	4 . 5 2 5 5	2
125	• •	22.8	21.5	_	2.8991	_	. 35.4	35.3	35 . 2	. 1414	2		1526.6	1520.6	1514.7	8.4146	_
150		50.0	18.5	16.5	.9192	2 0		35.2	35.2	.0000	2		1509.6	1507.4	1505.3	3.0406	2
200	• •	14.6	13.9	13.3			• 35.1	35.1	35.1	•0000	2		1505.0	1504.1	1503.3	1 . 2021	Z
250		13.0	12.7	12.4	. 4243	6-	• 35 • 1	35.1	35.1	.0000	2		1502.5	1501 . 9	1501.3	. 8485	2
300		12.0	11.8	11.6	. 2828		• 35.0		35.0	• 0000	2		1499.9	1498 . 3	1496.7	2.2627	2
400		10.8	10.3	9.9	.6364		-	35.0	35.0	.0707	2		1499.4	1498.8	1498.3	.7778	2
500		10.2	10.0	9.9	.2121	-			35.1	.0000	2		1499.5	1499 . 1	1498.7	.5657	2
600		9 . 8	9.6	9.5	.2121		• 35.1	35.1		.0707	2		1500 . 4	1499.5	1498.7	1 . 2021	2
700		9.5	9.3	9 . 1	. 2828	-	35.2	35.1	35 • 1		2		1499.8	1498.9	1498 . 1	1 . 2021	2
800		8 . 9	8 . 7	8 . 5	. 2828	2 •	• 35.2		35.1	.0707			1498.0	1497.2	1496.5	1.0607	2
900		8 • 0	7.8	7 . 6	. 2828		• 35.1	35,1	35.1	• 0000	2	• •	1497 • 2	1495.7	1494.2	2 . 1213	2
1000		7 . 4	7.0	6.7	. 4950	2 4	9 35.1	35.0	35.0	.0707	2		1495 . 8	1494.9	1494.0	1 . 2728	2
1100		6.7	6 . 4	6.2	. 3536	2	35.0	35.0	35.0	.0000	2			1494.1	1493.8	. 4950	2
1200		5 . 9	5.8	5 . 7	.1414	2 4	35.0	34.9	34.7	.0707	2		1494.5		1493.5	. 2828	2
		5.4	5.3	5 . 3	.0707	2 (	0 34 . 9	34.9	34.9	.0000	2		1493.9	1443.7	1493.2	1414	2
1300		4.9	4 . 8	4 . 8	.0707	2	. 34.5	34.9	34.9	.0000	2	• •	1493.4	1493.3		.2121	2
1400			4.3	4 . 3	.0707	_	. 34.5	34.9	34.9	.0000	2	• •	1493.2	1493.0	1492.9	.0000	1
1500		4 - 4	3 • 4	3.4	.0000		. 34.8	34.8	34.8	.0000	1		1493.0	1493.0	1493.0	• 0000	
1750		3 • 4	3 . 7	307	. 3000												

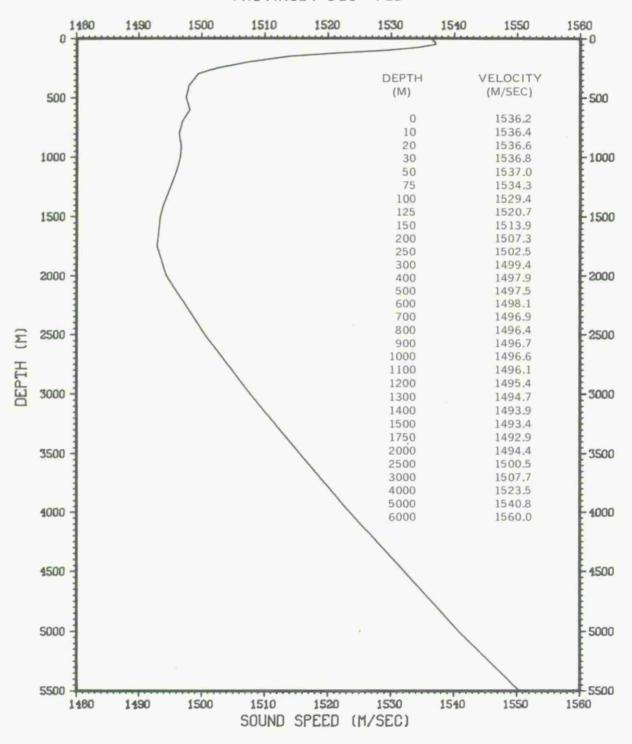
#### PROVINCE 6 OCT - NOV



## PROVINCE 7 DEC - FEB

-5		TEMP	ERATUR	E ICI			54	LINITY	(PPT)			VELO	CITY (M/S	SECI	
DEPTH	MAX	MEAN	M1N	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM	MAX	HEAN	MIN	ST DEV	
0 ••	27.2	25.5	24.7	• 4351	26 • •	35.6	35.4	35.0	.1366	26	• 1540 • 1	1536.4	1534.6	.9415	
10 **	27.5	25.4	24.7	.4891	26	35.6	35.4	35.0	.1377	26			1534.8	1.0407	
20 • •	27.1	25.4	24.6	.4623	26	35.6	35.4	35.1	.1266	26	. 1540.2	1536.5	1534.7	1.0334	
30	27.0	25.2	24.2	.5069	26	35.6	35.4	35.2	.1123	26	. 1540.2	1536.4	1533.9	1.1753	
50	27.0	24.8	23.3	.8954	26	35.6	35.4	35.2	.1164	26	. 1540.6	1535.8	1532.0	2.1247	
75 • •	27.1	23.2	19.0	1.9995	26	35,6	35.4	35.3	.1158	26	. 1541.3	1532.0	1520.9	5.1593	
100	25.7	20.9	14 . 4	2.7726	26 00	35.6	35.4	35.2	.1104	26	. 1538.7	1526.2	1507.4	7.6791	
125	23.8	17.9	13.9	2.2522	26	35.5	35.3	35.2	.0834	26	. 1534.6	1518.4	1506.1	6.4565	
150 • •	21.2	15.8	13.4	1.9964	26	35.5	35.2	35.2	.0679	26	. 1528.5	1512.3	1504.7	6.0127	
200 ••	15.0	13.2	12.3	.5907	26	35.2	35.2	35.1	.0504	26	• 1511.0	1505.1	1501.9	2.0039	
250	13.0	12.0	11.1	.4910	26	35.2	35.1	35.0	.0549	26	. 1505.2	1501.6	1498.2	1.7274	
300	12.1	11.2	10.3	. 4425	26	35.2	35.0	34.9	.0588	26	. 1502.9	1499.5	1496.4	1.5896	
400	11.5	10.4	9.2	• 4112	26	35.2	35.0	34.8	.0744	26	• 1502.3	1498.3	1493.7	1.5294	
500 **	10.8	9.7	9.0	. 4253	24 **	35.2	35.0	34.9	.0776	24 4	. 1501.4	1497.6	1494.6	1 . 6 1 4 4	
600	10.5	9 . 1	8 . 7	.3933	24 00	35.4	35.0	34.9	.1062	24	. 1502.5	1497 . 1	1495.2	1.5223	
700	9.2	8.6	8.3	.2105	24 00	35.2	35.0	34.9	.0608	24	• 1499.1	1496.8	1495.7	.8063	
800	8 . 6	8.1	7 . 8	•1903	24	35.1	35.0	34.9	.0532	24 1	. 1498.4	1496.5	1495.6	.7086	
900	8.1	7.6	7.4	+1-41.4	24 **	35.1	35.0	34.9	.0509	24 4	• 1498.2	1496.4	1495.3	.5771	
1000	7.7	7.2	6.6	.2066	23	35.1	35.0	34.9	.0302	23 4	. 1498.1	1496.2	1494.0	.7815	
1100	7.2	6.7	6 - 1	.2662	23	35.0	35.0	34.9	.0209	23 4	. 1498.1	1495.9	1493,6	1.0834	
1200	6.7	6.2	5 . 6	.3011	23	35.0	35.0	34.8	.0573	23	. 1497.5	1495.5	1493.2	1.2049	
1300	6.0	5.6	5 . 1	.2334	23	35.0	34.9	34.8	.0458	23 4	• 1496.6	1494.8	1492.7	.9968	
1400	5.6	5.0	4 . 6	.2052	23	34.9	34.9	34.8	.0288	23 4	. 1496.4	1494.1	1492.2	.8622	
1500	4.8	4 . 4	4 - 1	.1289	21 00	34.9	34.9	34.8	.0512	21 4	. 1494.7	1493.3	1492.0	.5237	
1750	3.5	3.3	3 - 1	.1281	13	34.8	34.8	34.7	.0277	13	. 1493.5	1492.9	1492.0	.5142	
2000	2.9	2.8	2.6	.1165	12	34.8	34.8	34.7	.0289	12 4	. 1495.2	1494.7	1494.0	.4196	
2500	2.2	2 . 1	2.0	.0775	11 **	34.8	34.7	34.7	.0505	11.4	. 1500.8	1500.3	1499.8	.3267	
3000	1.9	1.8	1.7	.0789	10	34.8	34.7	34.7	.0316	10	. 1508.2	1507.5	1507.2	. 3225	
4000	1.5	1.5	1.4	.0500	4	34.7	34.7	34.7	.0000	4 4	• 1523.7	1523.6	1523.4	.1258	

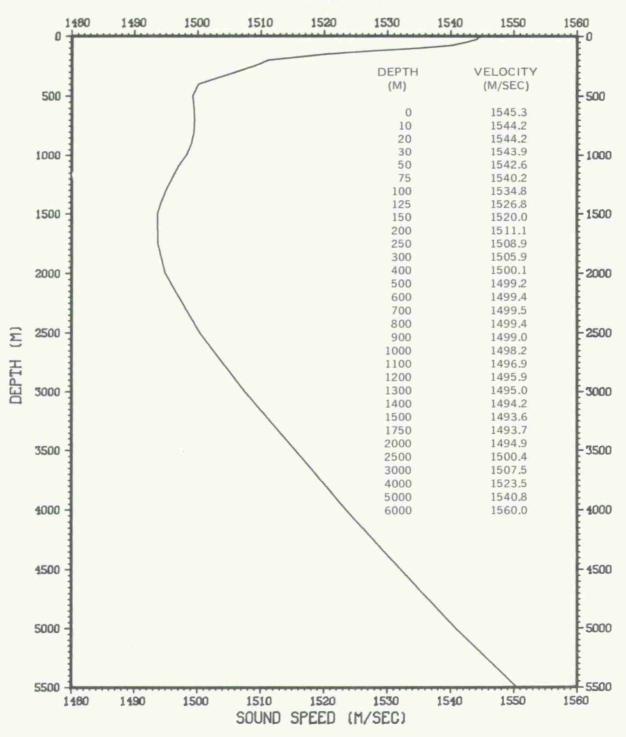
## PROVINCE 7 DEC - FEB



# PROVINCE 7 MAR - MAY

			TEMP	ERATUR	E (C)			5/	LINITY	(PPT)				VELOC	ITY (M/S	SECI	
DEPTH (M)		мах	MEAN	H1N:	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUH		HAX	HEAN	MIN	ST DEV	
0	• •	30.9	29.1	27.7	.9639	12	35.5	35.3	35.1	.1128	12		547.8	1544.2	1541.5	1.9242	
10		30.0	28.9	27.6	.7025	12	35.5	35.3	35.1	.1193	12	• 1	546.3	1543.9	1541.3	1.4613	
20		29.9	28.7	27.4	.755U	12	35.4	35.3	35.1	.0953	12	• 1	546.3	1543.9	1541.1	1.5506	
30	0 0	29.8	28.6	27.2	.7692	12 **	35.4	35.3	35.1	.0996	12	• • 1	546.3	1543.7	1540.8	1.6054	
50		29.2	28.0	27.0	.7141	12	35.5	35.4	35.2	.0996	12	• 1	545.3	1542.9	1540.8	1.4740	
75		27.8	26.4	24.9	.8158	12 00	35.6	35.4	35.3	.0937	12	• 1	542.7	1539.8	1536.3	1.7956	
100		25.6	24.1	22.7	.8937	12 **	35.6	35.4	35.3	.1168	12	. 1	538.2	1534.9	1531.2	2.1500	
125		22.4	21.0	19.0	.9728	12 **	35.5	35.4	35.3	.0900	12	. 1	531.1	1527.2	1521.7	2.6507	
150		19.2	17.7	16.5	.8732	12	35.4	35.3	35.2	.0577	12	• 1	522.7	1518.5	1514.8	2 . 5 4 6 5	
200		15.8	14.8	13.6	.6137	12 **	35.3	35.2	35.2	.0452	12	. 1	513.6	1510.2	1506.3	2.0263	
250		14.3	13.5	12.4	.5702	12 00	35.3	35.2	35.1	.0622	12	. 1	509.6	1507.0	1503.3	1.8730	
300		13.2	12.4	11.6	.5078	12	35.4	35.2	35.1	.1115	12	• • 1	507.0	1504.1	1501.3	1.7868	
400		11.9	10.9	9.9	. 4745	12	35.4	35 . 1	35.0	.1115	12	• • 1	504.2	1500.4	1496.6	1.7681	
500		10.8	10.1	9.4	.3801	12	35.3	35.1	35.0	.0996	12	. 1	501.9	1499.2	1496.3	1.5064	
600		10.1	9.6	8.9	.3473	12	35.2	35 . 1	35.0	.0835	12	1	500.8	1499.1	1496.4	1.3670	
700		9.6	9 . 1	8.5	.3888	12	35.3	35 . 1	35.0	.1073	12	• • 1	500.7	1498.8	1496.3	1.5090	
800		9.3	8.6	8 . 1	.4070	12	35.3	35 . 1	35.0	.1087	12	. 1	501.1	1498.6	1496.5	1.6376	
900		8.7	8.0	7.5	.4033	12	35.2	35.1	35.0	.0866	12	• 1	500.6	1497.9	1495.8	1.5980	
1000		7.9	7 . 4	6.9	. 3393	12 **	35.2	35 . 1	35.0	.0793	12	. 1	499.2	1497.0	1495.2	1.3514	
1100		7.1	6.7	6.3	. 2539	12 00	35.1	35.0	35.0	.0515	12	. 1	497.6	1496.1	1494.5	1.0183	
1200		6.5	6.2	5 . 7	. 2279	9	35.0	35.0	35.0	.0000	9		497.0	1495.7	1493.8	.9103	
1300		6.0	5.6	5 . 2	.2911	7	35.0	35.0	34.9	.0378	7	• 1	496.7	1494.9	1493.2	1.2662	
1400		5 . 6	5 . 1	4.7	• 3271	5	35.0	34.9	34.9	.0447	5	• 1	496.7	1494.5	1492.8	1.4206	
1500		5.1	4.6	4.2	. 3271	5	34.9	34.9	34.9	.0000	5		496.4	1494.1	1492.6	1.4276	
1750		3.7	3.5	3.4	.1258	4 00	34.9	34.8	34.8	.0500	4	• 1	494.4	1493.7	1493.0	.5737	
2000		2.8	2.7	2.7	.0577	4 **	34.8	34.8	34.8	.0000	4	. 1	494.9	1494.7	1494.4	.2217	
2500		2 - 1	2.1	2.0	.0500	4	34.8	34.8	34.8	.0000	4	0 1	500.4	1500.2	1500.0	.2062	
3000		1.8	1.8	1.8	• 6000	4	34.8	34.7	34.7	.0500	4		507.7	1507.5	1507.4	.1500	
4000		1.5	1.5	1 . 4	.07.07	2	34.7	34.7	34.7	.0000	2	0 1	523.6	1523.5	1523.4	.1414	

#### PROVINCE 7 MAR - MAY

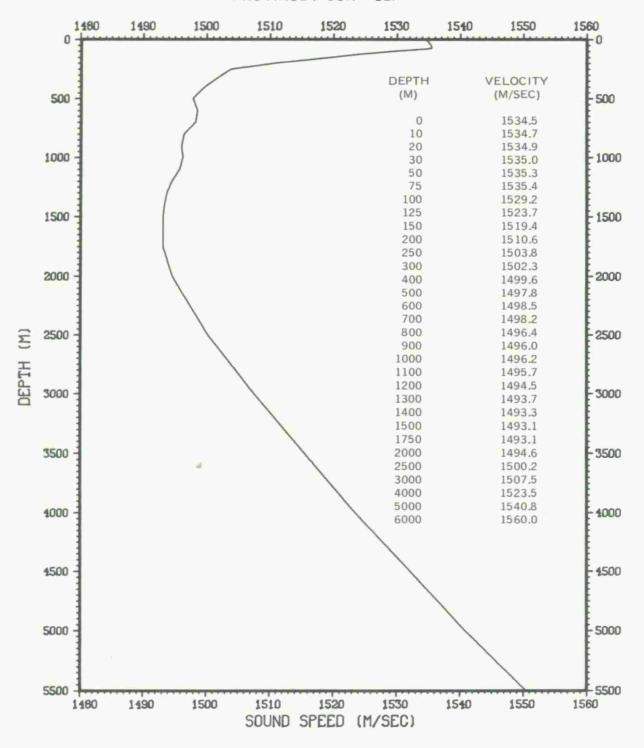


DATA IGNORED - IN CONTROL MODE

## PROVINCE 7 JUN - SEP

DEPTH (M) MAX MEAN MIN ST DEV NUM MAX MEAN MIN ST DEV NUM MAX MEAN MIN ST DEV NUM MEAN MIN ST DEV NUM NUM MEAN MIN ST DEV NUM NUM MEAN MIN ST DEV NUM NUM NUM MEAN MIN ST DEV NUM				TEMP	ERATUR	E (C)			SA	LINITY	(PPT)				VELOC	ITY (M/S	EC)	
0			MAX				NUM	MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
10	0		26.9	24.9	23.7	.7638	88	 35.7	35.3	35.0	.1349	88	• •					
20	-					.7577	88	35.7	35.3	35.0	.1362	88	0.9	1539.8				
30			_		_		88	 35.7	35 . 3	34.9	.1416	88						
50					22.9	.7668	8.8	35.7	35.3	35.0	.1378	8.8						
75 ** 26.2 24.3 19.9 1.00.35 88 ** 35.6 35.3 35.0 1263 88 ** 1539.3 1534.6 1523.4 2.07.87 88  100 ** 25.9 22.9 16.4 1.6782 88 ** 35.6 35.3 35.1 0.983 88 ** 1539.0 1531.7 1513.6 4.377.4 88  125 ** 24.5 20.6 14.4 2.1221 88 ** 35.5 35.3 35.1 0.758 88 ** 1536.0 1525.9 1507.7 5.83.42 88  150 ** 23.7 18.4 13.5 2.11.07 88 ** 35.4 35.2 35.1 0.0655 88 ** 1530.4 150.9.2 1505.1 6.0163 88  200 ** 21.7 14.7 12.0 1.6051 88 ** 35.4 35.2 35.0 0.0655 88 ** 1530.4 150.9.9 1500.7 4.9982 88  200 ** 21.7 14.7 12.0 1.6051 88 ** 35.4 35.2 35.0 0.0686 88 ** 1530.4 150.9.9 1500.7 4.9982 88  200 ** 21.7 13.0 11.3 1.01.49 87 ** 35.4 35.1 35.0 0.0686 88 ** 1530.4 150.9.9 1500.7 4.9982 88  300 ** 14.3 12.0 10.0 70.76 86 ** 35.4 35.1 35.0 0.0686 88 ** 1510.4 150.2.4 1495.1 2.4847 86  400 ** 12.2 10.8 9.5 500.4 85 ** 35.4 35.0 34.9 0.828 86 ** 1505.4 1499.8 1495.0 1.8258 85  500 ** 11.1 10.1 9.0 3819 84 ** 35.3 35.0 34.9 0.0736 84 ** 1502.6 1499.8 1495.0 1.8258 85  500 ** 11.1 10.1 9.0 3819 84 ** 35.3 35.0 34.9 0.0818 83 ** 1502.4 1498.8 1499.9 1.4142 84  600 ** 10.5 9.5 8.3 3674 83 ** 35.3 35.0 34.9 0.0818 83 ** 1502.4 1498.8 1499.9 1.4142 84  600 ** 10.0 8.9 7.9 4172 81 ** 35.3 35.1 34.9 0.0963 81 ** 1502.2 4 1498.8 1499.9 1.4142 84  600 ** 10.0 8.9 7.9 4172 81 ** 35.3 35.1 34.9 0.0963 81 ** 1502.2 4 1498.8 1499.3 7 1.4120 83  800 ** 9.0 8.3 7.4 3785 70 ** 35.3 35.1 34.9 0.090 76 ** 1499.5 1496.6 1499.4 1.6515 81  1000 ** 7.9 7.1 6.4 296.3 70 ** 35.2 35.0 34.9 0.0651 57 ** 1499.5 1496.6 1499.1 1.6515 81  1000 ** 7.9 7.1 6.4 296.3 70 ** 35.2 35.0 34.9 0.0651 57 ** 1499.5 1496.6 1499.1 1.6515 70  1000 ** 7.9 7.1 6.4 296.3 70 ** 35.0 34.9 0.0651 57 ** 1499.5 1496.6 1499.1 1.6515 70  1000 ** 7.9 7.1 6.4 296.3 70 ** 35.0 34.9 0.0651 57 ** 1499.5 1496.6 1499.1 1.6515 70  1000 ** 7.9 7.1 6.4 296.3 47 ** 35.0 34.9 0.0651 57 ** 1499.5 1496.6 1499.1 1.6515 70  1000 ** 7.9 7.1 6.4 296.3 70 ** 35.0 34.9 0.0685 70	-		-				88	35.6	35.3	35.0	.1293	-						
100 • 25.9 22.9 16.4 1.6782 88 • 35.6 35.3 35.1 .0983 88 • 1539.0 1531.7 1513.6 4.3774 88 125 • 24.5 20.6 14.4 2.1221 88 • 35.5 35.3 35.1 .0758 88 • 1534.0 1525.9 1507.7 5.8342 88 150 • 23.7 18.4 13.5 2.1107 88 • 35.4 35.2 35.1 .0655 88 • 1534.5 1520.2 1505.1 6.0163 88 150 • 23.7 14.7 12.0 1.6051 88 • 35.4 35.2 35.1 .0655 88 • 1534.5 1520.2 1505.1 6.0163 88 150 • 17.2 13.0 11.3 1.0149 87 • 35.4 35.2 35.0 .0686 88 • 1530.4 1509.9 1500.7 4.9982 88 150.0 • 17.2 13.0 11.3 1.0149 87 • 35.4 35.1 35.0 .0701 87 • 1518.9 1505.0 1499.0 3.3989 87 1400 • 12.2 10.8 9.5 • 5004 85 • 35.4 35.0 34.9 .0738 85 • 1505.4 1499.8 1495.1 2.4847 86 1500.0 • 11.1 10.1 9.0 .3819 84 • 35.3 35.0 34.9 .0738 85 • 1505.4 1499.8 1495.1 2.4847 86 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5			-	24.3	19.9	1.0635	88	35.6	35.3	35.0	.1263	88		1539.3	-			
125 • 24.5 20.6 14.4 2.1221 88 • 35.5 35.3 35.1 .0758 88 • 1536.0 1525.2 1507.7 5.8342 88 150 • 23.7 18.4 13.5 2.1107 88 • 35.4 35.2 35.0 .0655 88 • 1534.5 1520.2 1505.1 6.0163 88 200 • 21.7 14.7 12.0 1.6051 88 • 35.4 35.2 35.0 .0655 88 • 1530.4 1509.9 1500.7 4.9982 88 250 • 17.2 13.0 11.3 1.0149 87 • 35.4 35.1 35.0 .0701 87 • 1518.9 1505.0 1499.0 3.3989 87 300 • 14.3 12.0 10.0 .7076 86 • 35.4 35.1 34.9 .0828 86 • 1510.4 1502.4 1495.1 2.4847 86 400 • 12.2 10.8 9.5 .5004 85 • 35.4 35.0 34.9 .0738 85 • 1505.4 1499.8 1495.0 1.8258 85 500 • 11.1 10.1 9.0 .3819 84 • 35.3 35.0 34.9 .0818 83 • 1502.6 1498.8 1494.9 1.4142 84 600 • 10.5 9.5 8.3 .3674 83 • 35.3 35.0 34.9 .0818 83 • 1502.4 1498.8 1494.9 1.4142 84 600 • 10.5 9.5 8.3 .3674 83 • 35.3 35.0 34.9 .0818 83 • 1502.4 1498.8 1494.9 1.4142 84 600 • 10.5 9.5 8.3 .3674 83 • 35.3 35.0 34.9 .0818 83 • 1502.2 1497.9 1494.1 1.6515 83 700 • 10.0 8.9 7.9 • 4172 81 • 35.3 35.1 34.9 .0963 81 • 1502.2 1497.9 1494.1 1.6515 83 700 • 8.4 7.7 7.1 .3235 76 • 35.2 35.0 34.9 .0963 81 • 1502.2 1497.9 1494.1 1.3196 76 1000 • 7.4 6.5 5.8 .2934 65 • 35.1 35.0 34.9 .00685 70 • 1499.5 1496.6 1499.1 1.3196 76 1200 • 7.4 6.5 5.8 .2934 65 • 35.1 35.0 34.9 .00685 70 • 1499.5 1496.6 1499.7 1.122.6 37 70 1200 • 5.5 9 5.3 4.6 .2833 50 • 35.0 34.9 .0685 70 • 1499.0 1499.5 1496.6 1499.7 1.1867 50 1400 • 7.4 6.5 5.8 .2934 65 • 35.1 35.0 34.9 .00685 70 • 1499.0 1499.5 1496.6 1499.7 1.1867 50 1400 • 7.4 6.5 5.8 .2934 65 • 35.1 35.0 34.9 .00573 65 • 1499.8 1495.0 1493.1 1.2263 70 1400 • 5.5 9 5.3 4.6 .2833 50 • 35.0 34.9 34.8 .0051 47 • 1499.0 1493.1 1.2263 70 1490.0 • 1499.0 1493.1 1.2263 70 1400 • 5.5 9 5.3 4.6 .2833 50 • 35.0 34.9 34.8 .0051 47 • 1499.0 1493.1 1490.7 1.1867 50 1490.0 • 1499.0 1493.1 1490.7 1.1867 50 1490.0 • 1499.0		0.0			16.9	1.6782	88	35.6	35.3	35.1	.0983	8.8		-				
150 • 23.7 18.4 13.5 2.1107 88 • 35.4 35.2 35.1 .0655 88 • 1534.5 1520.2 1505.1 6.0163 88 20 21.7 14.7 12.0 16.051 88 • 35.4 35.2 35.0 .0686 88 • 1530.4 1509.9 1500.7 4.9982 88 250 • 17.2 13.0 11.3 1.0149 87 • 35.4 35.1 35.0 .0701 87 • 1518.9 1505.0 1499.0 3.3989 87 300 • 14.3 12.0 10.0 .7076 86 • 35.4 35.1 35.0 .0701 87 • 1510.4 1502.4 1499.0 1499.0 3.3989 87 300 • 14.3 12.0 10.0 .7076 86 • 35.4 35.1 35.0 .0701 87 • 1510.4 1502.4 1495.1 2.4847 86 300 • 12.2 10.8 9.5 .5004 85 • 35.4 35.0 34.9 .0738 85 • 1505.4 1499.8 1495.0 1.8258 85 500 • 11.1 10.1 9.0 .3819 84 • 35.3 35.0 34.9 .0736 84 • 1502.6 1498.8 1494.9 1.4142 84 600 • 10.5 9.5 8.3 .3674 83 • 35.3 35.0 34.9 .0818 83 • 1502.4 1498.4 1498.4 1498.4 1498.4 1498.4 1498.4 1498.4 1498.4 1498.4 1499.6 1499				_		-	88	35.5	35.3	35.1	.0758	88						
200 • 21.7 14.7 12.0 1.6051 88 • 35.4 35.2 35.0 0.686 88 • 1530.4 1500.7 4.9982 88 250 • 17.2 13.0 11.3 1.0149 87 • 35.4 35.1 35.0 .0701 87 • 1518.9 1505.0 1499.0 3.3989 87 30.0 • 14.3 12.0 10.0 .7076 86 • 35.4 35.1 34.9 .0828 86 • 1510.4 1502.4 1495.1 2.4847 86 10.0 • 12.2 10.8 9.5 .5004 85 • 35.4 35.0 34.9 .038 85 • 1505.4 1499.8 1495.0 1.8258 85 10.0 • 11.1 10.1 9.0 .3819 84 • 35.3 35.0 34.9 .0818 83 • 1502.6 1499.8 1494.9 1.4142 84 10.0 • 10.5 9.5 8.3 .3674 83 • 35.3 35.0 34.9 .0818 83 • 1502.4 1498.8 1494.9 1.4142 84 10.0 • 10.5 9.5 8.3 .3674 83 • 35.3 35.0 34.9 .0818 83 • 1502.4 1498.4 1494.9 1.4142 84 10.0 • 10.0 8.9 7.9 • 4172 81 • 35.3 35.1 34.9 .0968 81 • 1502.2 1497.9 1494.1 1.6515 81 10.0 • 7.9 7.1 6.4 2963 70 • 35.2 35.0 34.9 .0968 70 • 1499.5 1496.6 1494.1 1.3196 76 10.0 • 7.9 7.1 6.4 2963 70 • 35.2 35.0 34.9 .0818 8.0 • 1499.5 1496.6 1494.1 1.3196 76 1100 • 7.9 7.1 6.4 2963 70 • 35.2 35.0 34.9 .0573 65 • 1498.8 1495.3 1492.2 1.2263 70 1100 • 7.4 6.5 5.8 .2934 65 • 35.1 35.0 34.9 .0573 65 • 1498.8 1495.3 1492.2 1.2263 70 1100 • 7.4 6.5 5.8 .2934 65 • 35.1 35.0 34.9 .0573 65 • 1498.8 1495.3 1490.7 1.1867 50 1100 • 5.5 4.8 4.2 2883 50 • 35.0 34.9 34.8 .0452 50 • 1496.3 1493.7 1490.7 1.1867 50 1100 • 4.8 4.4 3.8 .2243 47 • 35.0 34.9 34.8 .0451 47 • 1494.1 1491.3 1.2263 70 1100 • 5.5 4.8 4.2 2885 47 • 35.0 34.9 34.8 .0452 50 • 1496.3 1493.7 1490.7 1.1867 50 1100 • 4.8 4.4 3.8 .2243 47 • 35.0 34.9 34.8 .0451 47 • 1495.0 1493.7 1490.7 1.1867 50 1100 • 4.8 4.4 3.8 .2243 47 • 35.0 34.9 34.8 .0451 47 • 1495.0 1493.7 1490.7 1.1867 50 1100 • 4.8 4.4 3.8 .2243 47 • 35.0 34.9 34.8 .0451 47 • 1495.0 1493.7 1490.7 1.1723 47 1500 • 4.8 4.4 3.8 .2243 47 • 35.0 34.9 34.8 34.8 .0211 44 • 1494.0 1493.7 1490.7 1.1723 47 1500 • 4.8 4.4 3.8 .2243 47 • 35.0 34.9 34.8 34.8 .0211 44 • 1494.0 1493.7 1490.7 1.1723 47 1500 • 4.8 4.4 3.8 .2243 47 • 35.0 34.9 34.8 34.8 34.8 .0211 44 • 1494.0 1493.7 1490.7 1.190.0 .7626 44 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 1490.0 14				-			88	35.4	35.2	35.1	.0655	88						
250 • 17.2   13.0   11.3   1.0149   87 • 6   35.4   35.1   35.0   .0701   87 • 1518.9   1505.0   1499.0   3.3989   87   33.3980   34.9   .0828   86 • 1510.4   1502.4   1495.1   2.4847   86   400 • 12.2   10.8   9.5   .5004   85 • 35.4   35.0   34.9   .0738   85 • 1505.4   1499.8   1495.0   1.4142   84   86   86   86   86   86   86   86							88	 35.4	35.2	35.0	.0686	88						
300 •• 14.3 12.0 10.0 .7076 86 •• 35.4 35.1 34.9 .0828 86 •• 1510.4 1502.4 1499.5 1 2.4847 86   400 •• 12.2 10.8 9.5 .5004 85 •• 35.4 35.0 34.9 .0736 85 •• 1505.4 1499.8 1499.0 1.88258 85   500 •• 11.1 10.1 9.0 .3819 84 •• 35.3 35.0 34.8 .0736 84 •• 1502.6 1498.8 1494.9 1.4142 84   600 •• 10.5 9.5 8.3 .3674 83 •• 35.3 35.0 34.8 .0736 84 •• 1502.4 1498.4 1494.9 1.4142 84   600 •• 10.0 8.9 7.9 .4172 81 •• 35.3 35.0 34.9 .0963 81 •• 1502.4 1498.4 1493.7 1.4120 83   800 •• 9.0 8.3 7.4 .3785 79 •• 35.3 35.1 34.9 .0963 81 •• 1502.2 1497.9 1494.1 1.6515 81   800 •• 7.7 7.1 .3235 76 •• 35.2 35.1 34.9 .0916 79 •• 1500.3 1497.3 1493.9 1.5237 79   900 •• 8.4 7.7 7.1 .3235 76 •• 35.2 35.1 34.9 .0790 76 •• 1499.5 1496.6 1494.1 1.3196 76   1100 •• 7.9 7.1 6.4 .2963 70 •• 35.2 35.1 34.9 .0790 76 •• 1499.5 1496.6 1494.1 1.3196 76   1100 •• 7.4 6.5 5.8 .2934 65 •• 35.1 35.0 34.9 .0573 65 •• 1498.8 1495.3 1492.2 1.2102 65   1200 •• 6.7 5.9 5.2 .2981 57 •• 35.1 35.0 34.9 .0573 65 •• 1498.8 1495.3 1492.2 1.2102 65   1200 •• 5.5 4.8 4.2 .2605 47 •• 35.0 34.9 34.8 .0511 47 •• 1496.1 1493.3 1490.7 1.1867 50   1400 •• 5.5 4.8 4.2 .2605 47 •• 35.0 34.9 34.8 .0511 47 •• 1496.1 1493.3 1490.7 1.1723 47   1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.8 .0511 47 •• 1496.1 1493.3 1490.7 1.1723 47   1750 •• 3.8 3.4 2.9 1815 44 •• 34.9 34.8 34.8 .0211 44 •• 1496.3 1493.1 1491.0 .9636 47   1750 •• 3.8 3.4 2.9 1815 44 •• 34.9 34.8 34.8 .0211 44 •• 1496.3 1493.1 1491.0 .9636 47   1750 •• 3.8 3.4 2.9 1815 44 •• 34.9 34.8 34.8 .0211 44 •• 1496.3 1493.1 1491.0 .9636 47   1750 •• 3.8 3.4 2.9 1815 44 •• 34.8 34.8 34.8 .0211 44 •• 1496.3 1493.1 1491.0 .9636 47   1750 •• 3.8 3.4 2.9 1815 44 •• 34.8 34.8 34.8 34.7 .0211 44 •• 1496.3 1499.7 .3393 36   2500 •• 1.9 1.8 1.7 .0618 29 •• 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 29   2500 •• 3.1 9 1.8 1.7 .0618 29 •• 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 29   2500 •• 3.1 9 1.8 1.7 .0618 29 •• 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 29   2500 •• 1.9 1.8 1.7 .0618 29 •• 34.7 .0000 29 •• 1508.0 1507.5 1507.								35.4	35 . 1	35.0	.0701	87	0.0	1518.9				
## 100 ** 12.2 10.8 9.5							86	35.4	35 . 1	34.9	.0828	86		1510.4	-			
500 •• 11•1 10•1 9•0 •3817 84 •• 35•3 35•0 34•8 •0736 84 •• 1502•6 1498•8 1494•9 1•4142 84 600 •• 10•5 9•5 8•3 •3674 83 •• 35•3 35•0 34•9 •0818 83 •• 1502•4 1498•4 1493•7 1•4120 83 700 •• 10•0 8•9 7•9 •4172 81 •• 35•3 35•1 34•9 •0963 81 •• 1502•2 1497•9 1494•1 1•6515 81 800 •• 9•0 8•3 7•4 •3785 79 •• 35•3 35•1 34•8 •0916 79 •• 1500•3 1497•3 1493•9 1•5237 79 900 •• 8•4 7•7 7•1 •3235 76 •• 35•2 35•1 34•9 •0790 76 •• 1499•5 1496•6 1499•1 1•3196 76 900 •• 8•4 7•7 7•1 6•4 •2963 70 •• 35•2 35•0 34•9 •0885 70 •• 1499•2 1496•1 1493•1 1•2263 70 1000 •• 7•9 7•1 6•4 •2963 70 •• 35•1 35•0 34•9 •0573 65 •• 1498•8 1495•3 1492•2 1•2102 65 1200 •• 6•7 5•9 5•2 •2981 57 •• 35•1 35•0 34•9 •0573 65 •• 1498•8 1495•3 1492•2 1•2102 65 1200 •• 6•7 5•9 5•3 4•6 •2833 50 •• 35•0 34•9 34•8 •0651 57 •• 1497•9 1494•5 1491•3 1•2464 57 1300 •• 5•5 4•8 4•2 •2805 47 •• 35•0 34•9 34•8 •0511 47 •• 1496•1 1493•3 1490•7 1•1723 47 1500 •• 4•8 4•4 3.8 *2243 47 •• 34•9 34•8 34•8 *0211 44 •• 1496•1 1493•1 1490•8 9636 47 1750 •• 3•1 200 •• 3•1 200 0854 36 •• 34•8 34•8 34•7 *0211 44 •• 1494•9 1493•1 1491•0 *7626 44 2000 •• 3•1 200 0854 36 •• 34•8 34•8 34•7 *0211 44 •• 1494•9 1493•1 1491•0 *7626 44 2000 •• 3•1 200 0854 36 •• 34•8 34•8 34•7 *0200 29 •• 1508•0 1507•5 1507•1 2502 3000 •• 1•9 1•8 1•7 *0618 29 •• 34•7 34•7 *0000 29 •• 1508•0 1507•5 1507•1 25242 29			-				85	 35.4	35.0	34.9	.0738	85		1505.4				
600 •• 10.5 9.5 8.3 .3674 83 •• 35.3 35.0 34.9 .0818 83 •• 1502.4 1498.4 1493.7 1.4120 83 700 •• 10.0 8.9 7.9 .4172 81 •• 35.3 35.1 34.9 .0963 81 •• 1502.2 1497.9 1494.1 1.6515 81 800 •• 9.0 8.3 7.4 .3785 79 •• 35.3 35.1 34.8 .0916 79 •• 1500.3 1497.3 1493.9 1.5237 79 900 •• 8.4 7.7 7.1 .3235 76 •• 35.2 35.0 34.9 .0790 76 •• 1499.5 1496.6 1494.1 1.3196 76 1000 •• 7.9 7.1 6.4 .2963 70 •• 35.2 35.0 34.9 .0573 65 •• 1498.8 1495.3 1492.2 1.2102 65 1100 •• 7.4 6.5 5.8 .2934 65 •• 35.1 35.0 34.9 .0573 65 •• 1498.8 1495.3 1492.2 1.2102 65 1200 •• 6.7 5.9 5.2 .2981 57 •• 35.1 35.0 34.9 .0573 65 •• 1498.8 1495.3 1492.2 1.2102 65 1200 •• 6.7 5.9 5.2 .2981 57 •• 35.1 35.0 34.9 .0573 65 •• 1498.8 1495.3 1492.2 1.2102 65 1200 •• 5.9 5.3 4.6 .2833 50 •• 35.0 34.9 34.8 .0452 50 •• 1496.3 1493.7 1490.7 1.1867 50 1400 •• 5.5 4.8 4.2 .2805 47 •• 35.0 34.9 34.8 .0452 50 •• 1496.1 1493.3 1490.7 1.1723 47 1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.8 .0491 47 •• 1496.1 1493.1 1490.7 1.1723 47 1500 •• 3.8 3.4 2.9 .1815 44 •• 34.9 34.8 .0491 47 •• 1496.1 1493.0 1490.7 1.1723 47 1750 •• 3.8 3.4 2.9 .1815 44 •• 34.8 34.8 34.8 .0211 44 •• 1494.9 1493.1 1490.8 .9636 47 1750 •• 3.8 3.4 2.9 .1815 44 •• 34.8 34.8 34.8 .0211 44 •• 1496.3 1494.6 1493.5 .5799 44 2000 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0211 44 •• 1496.3 1494.6 1493.5 .5799 44 2000 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36 2000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0500 29 •• 1508.0 1507.1 .254.2 29 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.1 .254.2 29							84	 35.3	35.0	34.8	.0736	84		1502.6	1498.8			
700 • 10.0 8.9 7.9 .4172 81 • 35.3 35.1 34.9 .0963 81 • 1502.2 1497.9 1494.1 1.6515 81 800 • 9.0 8.3 7.4 .3785 79 • 35.3 35.1 34.8 .0916 79 • 1500.3 1497.3 1493.9 1.5237 79 900 • 8.4 7.7 7.1 .3235 76 • 35.2 35.1 34.9 .0790 76 • 1499.5 1496.6 1494.1 1.3196 76 1000 • 7.9 7.1 6.4 .2963 70 • 35.2 35.0 34.9 .0573 65 • 1498.8 1495.3 1492.2 1.2102 65 1100 • 7.4 6.5 5.8 .2934 65 • 35.1 35.0 34.9 .0573 65 • 1498.8 1495.3 1492.2 1.2102 65 1200 • 6.7 5.9 5.2 .2981 57 • 35.1 35.0 34.9 .0573 65 • 1498.8 1495.3 1492.2 1.2263 70 1200 • 6.7 5.9 5.2 .2981 57 • 35.1 35.0 34.9 .0651 57 • 1497.9 1494.5 1491.3 1.2464 57 1300 • 5.9 5.3 4.6 .2833 50 • 35.0 34.9 34.8 .0452 50 • 1496.1 1493.7 1490.7 1.1867 50 1400 • 5.5 4.8 4.2 .2805 47 • 35.0 34.9 34.8 .0452 50 • 1496.1 1493.3 1490.7 1.1723 47 1500 • 4.8 4.4 3.8 .2243 47 • 34.9 34.8 .0491 47 • 1495.0 1493.1 1490.7 1.1723 47 1500 • 4.8 4.4 3.8 .2243 47 • 34.9 34.8 .0491 47 • 1495.0 1493.1 1490.7 .7626 44 1750 • 3.8 3.4 2.9 .1815 44 • 34.8 34.8 34.8 .0211 44 • 1495.0 1493.5 .5799 44 2000 • 3.1 2.7 2.5 .1368 44 • 34.8 34.8 34.7 .0500 36 • 1501.4 1500.2 1499.7 .3393 36 .000 • 1.9 1.8 1.7 .0618 29 • 34.7 34.7 34.7 .0500 29 • 1508.0 1507.5 1507.1 .2542 29 3000 • 1.9 1.8 1.7 .0618 29 • 34.7 34.7 34.7 .0000 29 • 1508.0 1507.5 1507.1 .2542 29 3000 • 1.9 1.8 1.7 .0618 29 • 34.7 34.7 34.7 34.7 .0000 29 • 1508.0 1507.5 1507.1 .2542 29 3000 • 1.9 1.8 1.7 .0618 29 • 34.7 34.7 34.7 34.7 34.7 34.7 34.7 34.7											.0818	8.3		1502.4				
800 •• 9.0 8.3 7.4 .3785 79 •• 35.3 35.1 34.8 .0916 79 •• 1500.3 1497.3 1493.9 1.5237 79 900 •• 8.4 7.7 7.1 .3235 76 •• 35.2 35.1 34.9 .0790 76 •• 1499.5 1496.6 1494.1 1.3196 76 1000 •• 7.9 7.1 6.4 .2963 70 •• 35.2 35.0 34.9 .0685 70 •• 1498.8 1495.3 1492.2 1.2102 65 1100 •• 7.4 6.5 5.8 .2934 65 •• 35.1 35.0 34.9 .0573 65 •• 1498.8 1495.3 1492.2 1.2102 65 1200 •• 6.7 5.9 5.2 .2981 57 •• 35.1 35.0 34.9 .0651 57 •• 1497.9 1494.5 1491.3 1.2464 57 1300 •• 6.7 5.9 5.2 .2981 57 •• 35.1 35.0 34.9 .0452 50 •• 1496.3 1493.7 1490.7 1.1867 50 1400 •• 5.5 4.8 4.2 .2805 47 •• 35.0 34.9 34.8 .0452 50 •• 1496.1 1493.3 1490.7 1.1723 47 1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.9 34.8 .0511 47 •• 1496.1 1493.3 1490.7 1.1723 47 1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.8 .0491 47 •• 1495.0 1493.1 1490.8 .9636 47 1750 •• 3.8 3.4 2.9 .1815 44 •• 34.8 34.8 .0211 44 •• 1495.0 1493.5 .5799 44 2000 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36 1.9 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 29 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1523.2 .1731 16				_			-		_		.0963	81		1502.2	1497.9			
900 •• 8•4 7.7 7·1 3235 76 •• 35.2 35.1 34.9 0790 76 •• 1499.5 1496.6 1494.1 1.3196 76 1000 •• 7.9 7·1 6.4 2963 70 •• 35.2 35.0 34.9 .0685 70 •• 1499.2 1496.1 1493.1 1.2263 70 1100 •• 7.4 6.5 5.8 .2934 65 •• 35.1 35.0 34.9 .0573 65 •• 1498.8 1495.3 1492.2 1.2102 65 1200 •• 6.7 5.9 5.2 2981 57 •• 35.1 35.0 34.8 .0651 57 •• 1497.9 1494.5 1491.3 1.2464 57 1300 •• 5.9 5.3 4.6 .2833 50 •• 35.0 34.9 34.8 .0452 50 •• 1496.3 1493.7 1490.7 1.1867 50 1400 •• 5.5 4.8 4.2 .2805 47 •• 35.0 34.9 34.8 .0452 50 •• 1496.3 1493.3 1490.7 1.1723 47 1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.8 .0491 47 •• 1496.1 1493.3 1490.7 1.1723 47 1500 •• 3.8 3.4 2.9 .1815 44 •• 34.9 34.8 34.8 .0211 44 •• 1496.3 1494.6 1493.5 .5799 1400 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36 2500 •• 2.4 2.1 2.0 .0854 36 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36 2500 •• 2.4 2.1 2.0 .0854 36 •• 34.8 34.8 34.7 .0500 29 •• 1508.0 1507.5 1523.2 .21731 16							-		-	34.8	.0916	79						
1000 • 7.9 7.1 6.4 .2963 70 • 35.2 35.0 34.9 .0685 70 • 1499.2 1496.1 1493.1 1.2263 70 1100 • 7.4 6.5 5.8 .2934 65 • 35.1 35.0 34.9 .0573 65 • 1498.8 1495.3 1492.2 1.2102 65 1200 • 6.7 5.9 5.2 .2981 57 • 35.1 35.0 34.8 .0651 57 • 1497.9 1494.5 1491.3 1.2464 57 1300 • 5.9 5.3 4.6 .2833 50 • 35.0 34.9 34.8 .0651 57 • 1497.9 1494.5 1490.7 1.1867 50 1400 • 5.5 4.8 4.2 .2805 47 • 35.0 34.9 34.8 .0511 47 • 1496.1 1493.3 1490.7 1.1723 47 1500 • 4.8 4.4 3.8 .2243 47 • 34.9 34.9 34.8 .0491 47 • 1495.0 1493.1 1490.8 .9636 47 1750 • 3.8 3.4 2.9 .1815 44 • 34.9 34.8 34.8 .0211 44 • 1494.9 1493.1 1491.0 .7626 44 1750 • 3.8 2.9 .1815 44 • 34.8 34.8 34.8 .0211 44 • 1496.3 1494.6 1493.5 .5799 44 1750 • 2.4 2.1 2.0 .0854 36 • 34.8 34.8 34.7 .0500 36 • 1501.4 1500.2 1499.7 .3393 36 1500.0 • 1.9 1.8 1.7 .0618 29 • 34.7 34.7 34.7 .0000 29 • 1508.0 1507.5 1507.1 .2542 29 3000 • 1.9 1.8 1.7 .0618 29 • 34.7 34.7 34.7 .0000 29 • 1508.0 1507.5 1523.2 .1731 16										34.9	.0790	76						
1100 •• 7.4 6.5 5.8 .2934 65 •• 35.1 35.0 34.9 .0573 65 •• 1498.8 1495.3 1472.2 1.2102 •5 1200 •• 6.7 5.9 5.2 .2981 57 •• 35.1 35.0 34.8 .0651 57 •• 1497.9 1494.5 1491.3 1.2464 57 1300 •• 5.9 5.3 4.6 .2833 50 •• 35.0 34.9 34.8 .0452 50 •• 1496.3 1493.7 1490.7 1.1867 50 1400 •• 5.5 4.8 4.2 .2805 47 •• 35.0 34.9 34.8 .0511 47 •• 1496.1 1493.3 1490.7 1.1723 47 1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.8 .0491 47 •• 1495.0 1493.1 1490.8 .9636 47 1750 •• 3.8 3.4 2.9 1815 44 •• 34.8 34.8 .0211 44 •• 1494.9 1493.1 1491.0 .7626 44 1750 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1490.2 1499.7 .3393 36 1500 •• 2.4 2.1 2.0 .0854 36 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36 1500 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1523.2 .21731 16	-						7.0	35.2	35.0	34.9	.0685	70						
1200 •• 6.7 5.9 5.2 .2981 57 •• 35.1 35.0 34.8 .0651 57 •• 1497.9 1494.5 1491.3 1.2464 57 1300 •• 5.9 5.3 4.6 .2833 50 •• 35.0 34.9 34.8 .0452 50 •• 1496.3 1493.7 1490.7 1.1867 50 1400 •• 5.5 4.8 4.2 .2805 47 •• 35.0 34.9 34.8 .0511 47 •• 1496.1 1493.3 1490.7 1.1723 47 1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.8 .0491 47 •• 1495.0 1493.1 1490.8 .9636 47 1750 •• 3.8 3.4 2.9 .1815 44 •• 34.9 34.8 34.8 .0211 44 •• 1494.9 1493.1 1491.0 .7626 44 2000 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0211 44 •• 1496.3 1494.6 1493.5 .5799 44 2000 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 149.7 .3393 36 2500 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 29 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1523.2 .1731 16							-	35.1	35.0	34.9	.0573	65						
1300 •• 5.9 5.3 4.6 .2833 50 •• 35.0 34.9 34.8 .0452 50 •• 1496.1 1493.7 1470.7 1.1667 50 1400 •• 5.5 4.8 4.2 .2805 47 •• 35.0 34.9 34.8 .0511 47 •• 1496.1 1493.3 1490.7 1.1723 47 1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.8 .0491 47 •• 1495.0 1493.1 1490.8 .9636 47 1750 •• 3.8 3.4 2.9 .1815 44 •• 34.9 34.8 34.8 .0211 44 •• 1494.9 1493.1 1491.0 .7626 44 2000 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0211 44 •• 1496.3 1494.6 1493.5 .5799 44 2000 •• 3.1 2.7 2.5 .0854 36 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36 1.9 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.1 .2542 29 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.1 .2542 29 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.1 .2542 29 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.1 .2542 29 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.1 .2542 29 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 34.7 34.7 34.7 34.7 34.7				5 . 9	5.2	. 2981	57	 35.1	35.0	34.8	.0651	57						
1400 •• 5.5 4.8 4.2 .2805 47 •• 35.0 34.9 34.8 .0511 47 •• 1496.1 1493.3 1490.7 1.1723 47 1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.8 .0491 47 •• 1495.0 1493.1 1490.8 .9636 47 1750 •• 3.8 3.4 2.9 .1815 44 •• 34.9 34.8 34.8 .0211 44 •• 1494.9 1493.1 1491.0 .7626 44 2000 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0211 44 •• 1496.3 1494.6 1493.5 .5799 44 2000 •• 3.1 2.7 2.5 .0854 36 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36 2500 •• 2.4 2.1 2.0 .0854 36 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 29							50	35.0	34.9	34.8	.0452	50			-			
1500 •• 4.8 4.4 3.8 .2243 47 •• 34.9 34.9 34.8 .0491 47 •• 1495.0 1493.1 1491.0 .7626 44  1750 •• 3.8 3.4 2.9 .1815 44 •• 34.9 34.8 34.8 .0211 44 •• 1494.9 1493.1 1491.0 .7626 44  2000 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0211 44 •• 1496.3 1494.6 1493.5 .5799 44  2500 •• 2.4 2.1 2.0 .0854 36 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36  2500 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 29				4 . 8	4.2	. 2805	47	35.0	34.9	34.8	.0511							
1750 •• 3.8 3.4 2.9 .1815 44 •• 34.9 34.8 34.8 .0211 44 •• 1494.9 1493.1 1491.0 .7626 44 2010 •• 3.1 2.7 2.5 .1368 44 •• 34.8 34.8 34.7 .0211 44 •• 1496.3 1494.6 1493.5 .5799 44 2010 •• 2.4 2.1 2.0 .0854 36 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1499.7 .3393 36 2500 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 29 3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1523.2 .1731 16							47	34.9	34.9	34.8	.0491	47		1495.0	1493.1			
2000 •• 3•1 2•7 2•5 •1368 44 •• 34.8 34.8 34.7 •0211 44 •• 1496.3 1494.6 1473.5 •5797 44 2500 •• 2•4 2•1 2•0 •0854 36 •• 34.8 34.8 34.7 •0500 36 •• 1501.4 1500.2 1499.7 •3393 36 2500 •• 1•9 1•8 1•7 •0618 29 •• 34.7 34.7 34.7 •0000 29 •• 1508.0 1507.5 1523.2 1731 16				3.4	2.9	.1815	44	34.9	34.8	34.8	.0211	44						
2500 •• 2.4 2.1 2.0 .0854 36 •• 34.8 34.8 34.7 .0500 36 •• 1501.4 1500.2 1479.7 .3393 36 .0500 0.0 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 29 .0000 0.0 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 34.7 .0000 29 •• 1508.0 1507.5 1523.2 .1731 16			-	-	_					34.7	.0211	44						
3000 •• 1.9 1.8 1.7 .0618 29 •• 34.7 34.7 .0000 29 •• 1508.0 1507.5 1507.1 .2542 27					-						.0500							
20 0 000 14 00 1623 0 1523 2 01731 16								34.7	34.7	34.7	.0000	29						
			1.5	1.4	1.4	.0500	16	34.7	34.7	34.7	.0000	16	0.0	1523.8	1523.5	1523.2	.1731	16

PROVINCE 7 JUN - SEP

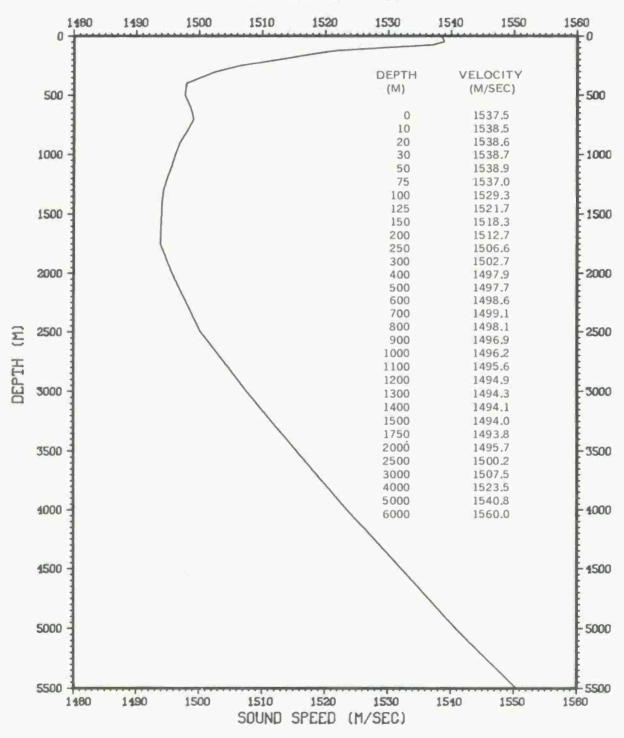


## PROVINCE 7 OCT - NOV

حد درون المناسب العلم المناقب و المناقب و المناسب المناقب و المناقب و المناقب و المناقب و المناقب و المناقب و ا - المناقب و المناقب

		TEMP	PERATUR	(C)			5 A	LINITY	(PPT)			VELOC	TTY THE	(23	
DEPTH (M)	MAX	MEAN	MIN	ST DEV	NUM	MAX	HEAN	MIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM
0 ••	27.4	26.3	25.5	•7021	5 ••	35.6	35 . 3	35.1	.2121	5 • •	1540.9	1538.1	1536.1	1.7743	5
10 ••	26.7	26.4	26.2	.1924	5 **	35.6	35.3	35.0	.2387	5 • •	1539.6	1538.5	1538.1	.6364	5
20 • •	26.3	26.3	26.2	.0548	5	35.5	35.3	35.1	.1789	5 • •	1538.6	1538.4	1538.3	.1304	5
30 ••	26.3	26.1	25.9	.1673	5 **	35.4	35.3	35.1	.1517	5 • •	1538.7	1538.2	1537.9	.3131	5
50 **	26.1	25.8	25 . 4	. 2950	5	35.6	35.3	34.9	.2775	5 • •	1538.9	1537.9	1536.8	.8961	5
75 ••	26.2	24.9	23.6	.9633	5 * •	35.7	35.3	34.9	.3194	5 **	1539.6	1536.2	1533.0	2.4358	5
100 **	25 . 1	22.4	20.9	1.7598	5 **	35.4	35.2	35.0	.1673	5 • •	1537.2	1530.3	1526.3	4.5251	5
125 • •	24.5	20.2	17.5	2.7581	5	35,6	35.3	35.1	.1924	5	1536.3	1524.8	1517.4	7.3792	5
150 ••	21.2	18.0	15.7	2.3801	5	35.5	35.3	35.2	.1225	5 • •	1528.3	1519.2	1512.4	6.8598	5
200 ••	17.0	15.5	13.5	1.3700	5	35,3	35.2	35.1	.0707	5 • •	1517.3	1512.5	1506.2	4.3107	5
250 ••	14 - 1	13.4	11.9	.8701	5 • •	35.2	35 . 1	35.1	.0447	5	1508.7	1506.4	1501.4	2.8952	5
300 ••	12.1	11.9	11.6	.2363	4 **	35.1	35.0	35.0	.0577	4 • •	1503.0	1502.2	1501.0	.8883	4
400 ••	10.7	10.5	10.3	.2082	3   • •	35.1	35 . 0	35.0	.0577	3	1499.5	1498.6	1497.9	.8083	3
500 ••	10.0	9.8	9.6	.2000	3 **	35.1	35 . 0	35.0	.0577	3 • •	1498.8	1497.9	1497.1	.8622	3
600 ••	9.6	9 . 4	9.2	.2082	3 • •	35 . 1	35.0	35.0	.0577	3 • •	1498.6	1497.8	1497.1	.7550	3
700 ••	9.3	9.1	8.9	.2082	3 • •	35.2	35 . 1	35.0	.1000	3 **	1499.1	1498.6	1498.0	.5508	3
800 ••	8 . 6	8 . 6	8 . 5	.0577	3	35.2	35 . 1	35.0	.1155	3 • •	1498.7	1498.5	1498.1	. 3464	3
900 ••	7.9	7.8	7.8	.0577	3 • •	35.1	35 . 1	35.0	.0577	3 • •	1497.5	1497.2	1496.9	.3000	3
1000 ••	7.4	7.2	6.9	.2517	3 **	35.1	35.0	35.0	.0577	3 • •	1497.1	1496.2	1495.2	.9609	3
1100	7 . 1	6.6	6 . 1	.5000	3	35.0	35.0	35.0	.0000	3 • •	1497.7	1495.6	1493.5	2.1008	3
1200 ••	6.7	6.0	5 • 4	.6506	3 ••	35.0	35.0	34.9	.0577	3 • •	1497.6	1494.9	1492.2	2.7000	3
1300 ••	6.2	5.5	4 . 8	.7000	3 ••	35.0	35.0	34.9	.0577	3	1497.1	1494.3	1491.4	2.8537	3
1400 ••	5.5	5.0	4 . 4	•5568	3	35.0	34.9	34.9	.0577	3	1496.4	1494.1	1491.4	2.5166	3
1500 ••	5.0	4.6	4 . 0	.5132	3 **	35.0	34.9	34.8	.1000	3	1495.8	1494.0	1491.5	2.2189	3
1750 ••	3.7	3 . 4	3 . 2	.3536	2	35.1	34.9	34.8	.2121	2 • •	1495.0	1493.7	1492.5	1.7678	2
2000 ••	3.2	2.9	2.7	.3536	2 * *	35.1	34.9	34.8	.2121	2 • •	1496.8	1495.7	1494.6	1.5556	2
2500 ••	2.2	2.2	2 . 2	.0000	1 **	34.8	34.8	34.8	.0000	1	1500.6	1500.6	1500.6	.0000	1
3000 ••	1.8	1 . 8	1.8	.0000	1 **	34.7	34.7	34.7	.0000	1 **	1507.6	1507.6	1507.6	.0000	-1
DATA IGNORED	- IN CO	NTROL	MODE												

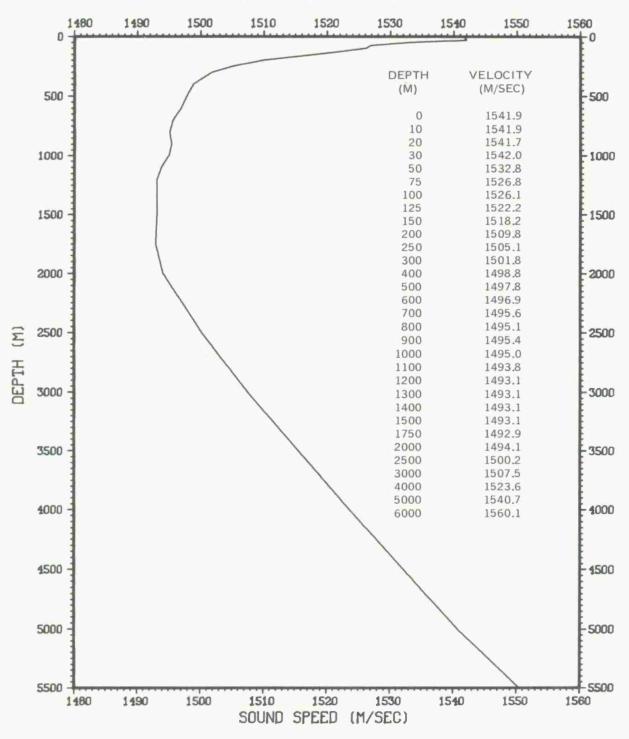
#### PROVINCE 7 OCT - NOV



## PROVINCE 8 DEC - FEB

			TEMP	ERATUR	E (C)			SA	LINITY	(PPT)				VELOC	ITY (H/S	EC)	
DEPTH																	
( M 1		MAX	MEAN	MIN	ST DEV	NUN	MAX	MEAN	MIN	ST DEV	NUM		HAX	MEAN	MIN	ST DEV	NUM
G		30.4	28 - 3	27 • 6	-6413	35 • •	35.7	35.2	34.5	. 2784	35	• •	1547.	1542.6	1540.9	1 - 3731	35
10		28.8	28.1	27.6	.3729	35	35.0	35.2	34.5	. 2668	35		1543 - 8	1542 . 2	1541.0	.7937	35
20		72.8	27.9	27 . 2	. 3973	35	35.6	35.2	34.5	. 2753	35		1543.9	1542.0	1540.8	. 8504	35
3.0		28 . 7	27 . 7	26.9	. 4409	35 ••	35.6	35.2	34.5	. 2578	35		1543.8	1541 . 7	1540 - 1	.8852	35
50		28 - 2	26.5	23.7	1 - 1218	35	35.5	35.3	34.8	.1929	35		1543.3	1539 . 4	1532 . 8	2.5469	35
75		27 . :	27+2	18 . 9	1.9627	35	35.5	35.3	35.0	.1069	35		1540 . 9	1531 . 9	1520.5	4.8974	35
130		73.2	27.04	17.9	1.4855	35 ••	35 . 4	35.2	35 . €	.6739	35		1532.3	1525.2	1518.2	3.9828	35
125	• •	21 - 5	13.4	15.5	1.2238	35	35.4	35.2	35.0	.0710	35		1527 - 1	1520 . 0	1511.3	3.5115	35
150	• •	18.8	16.6	13.8	1.2680	35 ••	35 . 4	35.2	35.0	.0725	35	• •	1521 . 6	1515 1	1506.1	3 . 3519	35
200		16.5	14+1	12.6	.8324	35 **	35 . 2	35.1	35 - 1	.0502	35	• •	1515.3	1507.9	1502.9	2.7008	35
250		14.8	12.8	11.6	.6624	35	35.2	35.1	35.0	. 9471	35		1510.9	1504.3	1500.4	2.3019	35
300		13.0	17 . 8	11 - 2	.4289	34	35 . 2	35.1	35.3	. 3569	34		1506.0	1501.8	1499.6	1 . 5288	34
466	• •	11 - 2	10.5	9 . 8	. 3294	34	35.2	35.0	34.9	. 6673	3 4		1501 - 2	1498 . 7	1495.9	1 . 2164	34
500		10 - 3	2.6	9.0	.3286	31 ••	35 • 1	35.0	34.8	.0729	31		1499.8	1497 . 2	1495.0	1 . 2434	3-1
600		9.5	9.0	6.5	. 2561	30	35 . 2	35.6	34.9	.0759	30		1498.3	1496.6	1494+6	.9696	30
700		9	8.5	6.0	. 2504	35 **	35 . 2	35.0	34.4	. 3776	33		1498 - 4	1496 . 4	1494.5	.9876	30
800		8.5	3.0	7 . 5	. 2674	33	35 . 2	35.0	34.9	.5610	30		1497.8	1496.2	1494.2	1.0307	30
986		7 . 9	7 • 4	7 . 0	.2682	26	35 • 1	35.0	34.9	.6599	26		1497.5	1495 . 4	1493.6	1.0799	26
1036		7 . 2	5.8	6 . 4	. 2223	29	35 - 1	35.0	34.9	.0733	20		1496 . 4	1494.6	1493.0	.8938	20
1166	9.0	6.3	5 . 2	5 . 8	.2231	20	35 • 1	34.9	34 . 8	.0761	20		1496 • 4	1494.1	1492.2	.9180	20
1200		6.2	5 . 7	5 . 3	.2113	25	35 • 1	34.9	34.8	. 0754	20		1495 . 9	1493.7	1491 . 7	. 9633	20
1300		5 . 6	5 • 2	4 + 8	.2183	20	35.0	34.9	34.8	· 6447	23	• •	1494.8	1493.3	1491.5	. 8810	20
1400		5 . 2	4 . 7	4 . 3	. 2025	19	35.0	34.9	34.8	• 0535	19		1495.0	1492.9	1491 . 2	.8731	19
1500		4 . 6	4 . 2	3 . 9	.1857	17	34.9	34.9	34.8	.0493	17		1443.9	1492.6	1491 . 0	.7552	17
1755		3 . 6	3 + 3	3 • 1	.1532	17   • •	34.9	34.8	34.8	· 0243	17		1493.9	1492.9	1491.6	.6590	17
2000	0.0	2 . 9	2 . 7	2 • 6	.5961	14	34.9	34.8	34.7	.0475	1.4		1495.2	1494.4	1493.8	. 4428	14
2500		2 . 2	2 • 1	2.0	.6823	10	34.8	34.7	34.7	.0516	10		1500 . 9	1500 . 3	1499.9	. 3565	10
3060		1 • 9	1 - 8	1 + 7	. 6757	9	34.8	34.7	34.7	.0500	9		1508 . 1	15n7.5	1507.2	.3206	9
4600		1 + 7	1 . 5	1 + 9	.1414	4	34.7	34.7	34 - 7	• 7000	46		1524.7	1523.8	1523.4	.6131	4

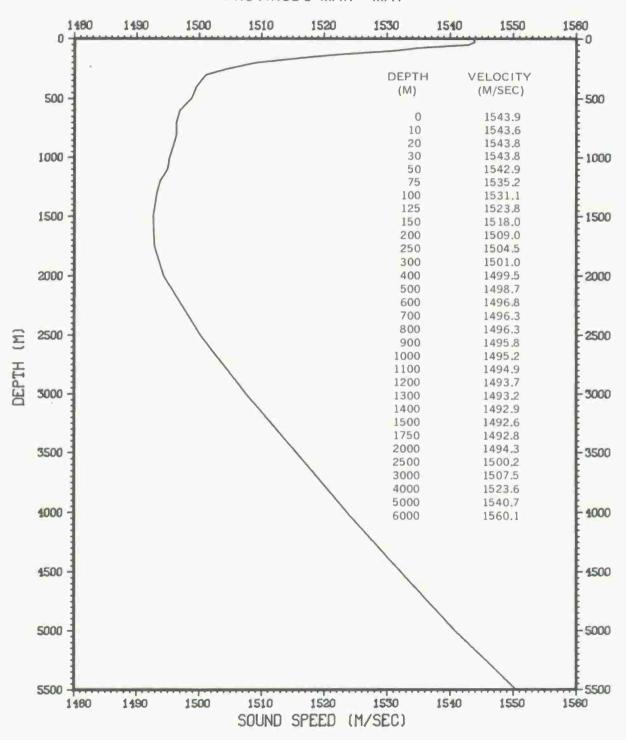
#### PROVINCE 8 DEC - FEB



## PROVINCE 8 MAR - MAY

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (M/S	ECI	
UEPTH (M)		MAX	MEAN	HIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0		30 • 7	29 • 1	27 • 9	.6410	72	• •	35.5	35 • 1	34.5	• 2642	72	**	1547 • 4	1544.6	1541.5	1.3456	72 72
10	• •	29.8	28.9	27 • 6	.6285	72		35.4	35.1	34.5	· 2538 · 2375	72	• •	1545 • 8	1543.8	1541 • 4	1.8881	72
36		29.7	28 • 1	24 - 1	1.2682	72	• •	35.4	35.2	34.6	. 2256	72		1546 · n	1542 • 4	1533.5	2.7239	72
50		29.3	27.0	22.6	1.7175	72		35.5	35.2	34.7	.1927	72		1545.6	1540 • 4	1530.0	3.8728	72
75		28.2	25.0	21.0	1.8742	72		35.7	35.3	34.8	.1202	72		1543 - 1	1536.3	1526.5	4.4822	72
100		25 - 1	21.9	18.0	1.5363	72		35.5	35.3	35 . 2	· 0893			1537 - 1	1529.2	1518.6	3.9976	72
125		21.4	1902	15.6	1 - 2000	72		35.4	35.3	35 . 1	.0642	72		1528.5	1522 - 1	1511.6	3 . 4381	72
150		19.8	16.9	13.6	1.0261	72		35.3	35.2	35 . 1	.0381	72		1524.5	1515.9	1505.6	3.0958	72
200		15.6	14.2	12.6	.6743	72		35.3	35.2	35 . 1	.0432	72		1512.7	1508.3	1502.9	2.2369	72
250		14.0	12.8	11.7	.5859	72		35.3	35.1	35.0	. 0564	72		1508.5	1504.6	1500.5	2.0123	72
300		12.7	11.7	10.8	. 4689	72		35.2	35.1	35 . 0	.0516	72	• •	1505 1	1501 . 6	1498.3	1.6594	72
400		11 - 1	10.5	9.7	.3042	68		35 • 1	35.0	34 . 9	.0438	68	• •	1500 . 8	1498.7	1495.9	1 4 0 9 3 7	68
500		10.2	9.7	8 . 8	. 2605	68		35 • 1	35.0	34.8	.0481			1499.5	1497.5	1494 - 1	.9739	68
600		9 . 7	9 . 1	8 . 3	-2414	68	• •	35.1	35.0	34.9	.0423	68	• •	1499.3	1496.9	1493.8	.9426	68
700		8 . 9	8 . 5	8 . 1	. 1694	68		35.1	35.0	34.9	.0345	68		1497.9	1496.5	1494.9	.7174	68
800		8 . 4	7.9	7 . 6	.1873	68		35 - 1	35.0	35.0	.0341	68	• •	1497.5	1495.9	1494.4	.7446	68
900		7 . 9	7 . 4	6.8	.2058	68	• •	35 - 1	35.0	34.9	· 0364	68		1497.3	1495.5	1493.0	.8389	68
1000		7 . 3	6.9	6.3	.2361	68		35 • 1	35.0	34.9	.0368	68		1496.9	1495.0	1492.5	.9639	68
1100		6.9	6.3	5 • 5	. 2824	65		35 · C	35.0	34.9	.0501	65		1496.8	1494.4	1491 - 2	1 - 1373	65
1200		6.2	5 . 7	5 . 3	.2035	27		35.0	34.9	34.8	.0456	27	• •	1495 • 7	1493.5	1492.0	.8127	27
1300		5 . 7	5 . 2	4 . 9	. 1691	27	• •	35.6	34.9	34 . 8	.0392	27	• •	1495.2	1493.2	1491.9	.7694	27
1400		5 . 1	4 . 7	4 . 4	. 1744	22		34.9	34.9	34.8	.0429	22		1494.5	1492.9	1491.4	.7511	22
1500		4 . 6	4 . 3	3 . 8	. 1882	22	0 0	34.9	34.8	34.8	.0503	22	• •	1494-1	1492.6	1490 . 8	.7817	22
1750		3.5	3 . 3	3 . 0	. 1430	22	• •	34.9	34.8	34 . 8	.0213	22		1493.6	1492.8	1491 - 4	.59A1	22
2000		2 . 9	2.7	2 . 5	-1068	19	• •	34.6	34.8	34.8	.0000	19		1495 - 2	1494.3	1493.5	.4682	19
2500		2.2	2 . 1	2.0	. 0561	15		34.8	34.7	34.7	.0458	15		1500.4	1500.2	1499.9	. 1935	15
3000		1.8	1 . 8	1 . 7	. 0458	15	• •	34.8	34.7	34.7	.0352	15		1507.7	1507.5	1507.2	.1759	15
4000		1 . 5	1 . 5	1 . 4	· C522	1.1	0.0	34.7	34.7	34.7	.0000	1.1		1523.8	1523.6	1523.3	.1573	1.1

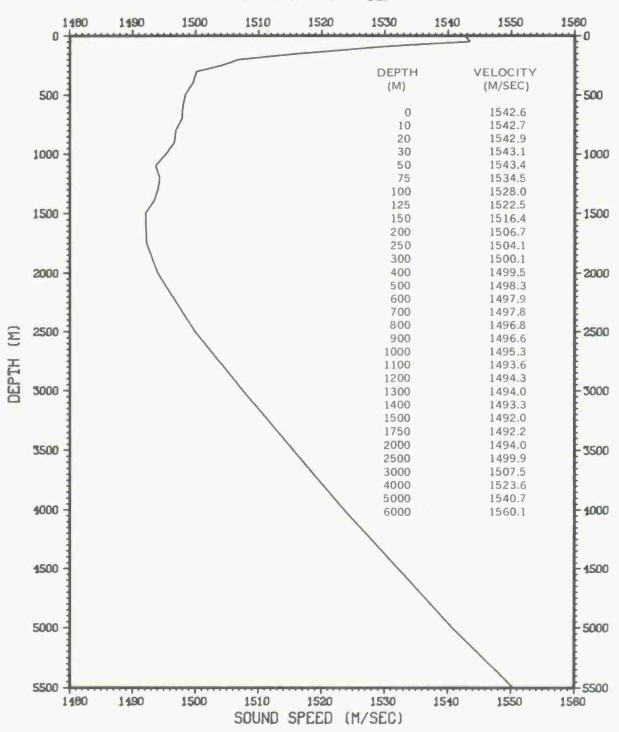
#### PROVINCE 8 MAR - MAY



## PROVINCE 8 JUN - SEP

			TEMP	ERATUR	E (C)				5 A	LINITY	(PPT)				VELOC	ITY (M/S	ECI	
DEPTH (M)		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	HEAN	HIN	ST DEV	NUM
0	• •	30.0	28.2	25.2	1.1895		• •	35.8	35 - 1	34.7	. 2204	94	• •	1546 . 1	1542.2	1535.5	2 • 4376	9.4
10	• •	30.0	28.2	25 • 2	1.1629			35.8	35.1	34.7	• 2251	94	• •	1546.2	1542.2	1535.6	2.3822	94
20		29.9	28 . 1	25 - 2	1 - 1297			35.8	35.1	34.7	• 2157	94	• •	1546-1	1542.2	1535.8	2.3277	9.4
30		29.6	27.9	24 • 4	1 - 1423		• •	35.8	35.2	34.7	.2092	94		1545.7	1542.1	1534.2	2.3710	94
50		29.4	27.3	21.9	1.2127		• •	35.9	35.2	34.8	.2032	94	• •	1545.4	1541 • 2	1528.3	2.6562	94
75	• •	29 - 1	25 • 1	19.2	1.6552			35.7	35.3	35 • €	.1342	94	• •	1545.3	1536.7	1521.5	3 • 9557	94
100	• •	26 . 4	21.6	15.9	2.2293			35 • 7	35.3	35.2	.0907	94	• •	1540 • 4	1578.2	1512.3	5.8772	94
125	• •	25 . 4	18.7	15.5	1.9450	9.4		35.7	35.3	35 • 2	· 6743	94		1538.7	1520.8	1511 . 2	5 - 4570	94
150		23.5	16.7	14.5	1.5319	94		35.5	35.2	35 . 1	.0598	94		1534.2	1515.2	1508.5	4.5100	9 4
200		18.5	14.0	12.8	.8379	94		35.3	35.2	35 - 1	· 0562	94	• •	1521 . 6	1507.7	1503.7	2.7052	94
250		14.5	12.6	11 . 6	.5559	94		35.2	35.1	35.0	.0421	94		1510 - 1	1503.8	1500 - 4	1 . 9054	94
300		13.2	11.7	10.9	. 4577	94		35.2	35.1	35.0	.0562	9.4		1506.5	1501-3	1498.5	1 . 6197	94
400		11.3	10.6	9.9	. 2619	94		35 . 1	35.0	34.9	.0336	94		1501 . 7	1499.0	1496 . 6	.9552	94
500		10.4	9 . 8	9.2	. 2594	94		35.2	35.0	34.9	.0595	94		1500 • 4	1498 . 0	1495.4	1.0006	94
600		10.0	9.2	8 . 7	.3017	93		35.2	35.0	34.8	.0667	93		1500 - 1	1497.5	1495 . 2	1.1628	93
700		9 . 4	8 . 6	7 . 8	.3074	93		35.2	35.0	34.8	.0646	93		1500.0	1496.8	1493.4	1.2013	93
800		8 • 8	R . D	7.0	.2683	93		35.2	35.0	34.8	. 0549	93		1499.2	1495.9	1491.9	1 . 0599	93
900		8 . 3	7.4	6 . 6	.2807	92		35.2	35.0	34.8	.0548	92		1499 - 1	1495 . 2	1492 . 2	1 - 1536	92
1000		7 . 7	6.8	5.5	.3315	90		35 . 1	35.0	34.8	.0408	90		1498.4	1494.5	1489.3	1.3791	90
1100		7 - 1	6.2	5 . 4	. 2993	82		35 . 1	34.9	34.8	.0585	82		1497 . 7	1494.0	1490 . 4	1 . 2280	82
1200		6.5	5 . 8	4 . 8	. 2917	47		35.0	34.9	34.8	.0477	47		1497 - 1	1493.9	1489.8	1 . 2257	47
1300		5 . 8	5 - 3	4 . 6	. 2381	44		35.0	34.9	34.8	.0429	44		1495.6	1493.5	1490 . 4	.9998	44
1400		5 . 3	4 . 8	4 . 2	.2330	38		34.9	34.9	34.7	.0525	38		1495.2	1493 . 1	1490 . 8	.9558	38
1500	0 0	4 . 8	4 . 3	3.9	. 2045	38		34.9	34.8	34.7	.0515	38		1495.0	1492 . 7	1491 - 1	.8936	38
1750		3 . 6	3 - 3	3 • 0	. 1550	3.8		34.9	34.8	34.7	.0283	38		1493.9	1492.6	1491 - 3	.6771	38
2000		3.0	2.7	2.5	.1188	3.7		34.9	34.8	34.7	.0287	37		1495.5	1404.2	1493.3	.4788	37
2500		2 - 1	2 · C	1 + 9	.0572	27	• •	34.8	34.7	34.7	.0492	27		1500.5	1500.0	1499.3	. 2554	27
3000		1.8	1 . 8	1.7	. 0436	-		34.8	34.7	34.7	.0277	25		1507.8	1507.5	1507 - 1	.1748	25
4000		1.5	1.5	1 - 4	.0514	18	• •	34.7	34.7	34.7	•0000	18		1523.8	1523.5	1523.3	.1166	18
5000		1 • 3	1.3	1.3	.0000	3		34.7	34.7	34.7	.0000	-		1540 - 7	1540 . 7	1540 . 7	.0000	3
3000		,				_		-	3		0 7 7 9	-						

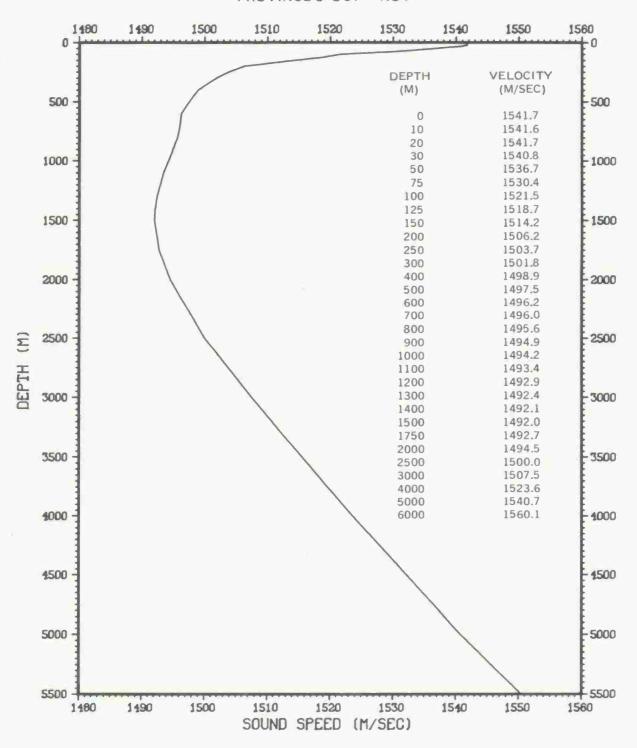
#### PROVINCE 8 JUN - SEP



## PROVINCE 8 OCT - NOV

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY CH/S	Ecl	
DEPTH (H)		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0		78 • 3	27.8	27 • 3	.2952	12	•	36.D	35.5	34.9	·2807	12	• •	1542 • 6	1541 • 9	1540 . 8	·5054	12
20		28 • 4	27.7	27.0	.4152	12		36.0	35.5	35 • (-	. 2712	12		1542 . 9	1541.8	1540.9	.6620	12
30 •	-	28.4	27.3	26.1	.6337	12		35 . 8	35.5	35 ⋅ C	.2209	12		1543 - 1	1541 . 2	1538.7	1 . 2152	12
2.0		28.5	25.8	23.2	1.6020	12		35.6	35.4	34.9	. 2094	12		1543.5	1537.8	1531.8	3.5350	12
75 •		28+4	23.2	19.2	2.7684	12		35.5	35.3	35 - 1	1165	12		1543.8	1531.9	1521 . 6	6.4609	12
100 •		24.8	20.7	17.0	2.4824	12		35.6	35.3	35.2	• 1115	12	• •	1536.5	1525.8	1515.7	5.6646	12
125 .		23.5	18 . 7	15.3	2.4330	12		35 . 4	35.3	15 . 2	· D 6 6 9	12		1533 . 8	1520 . 7	1510.8	5.8407	12
150 .		21.7	16.7	1.5 + 1	2.1823	12	• •	35.3	35.2	35 - 1	.0515	12		1529.5	1515.1	1507.2	6 . 4211	12
200 •		16.3	14 - 1	12.7	. 9506	1.2		35.3	35.2	35 • 1	.0577	12	• •	1515.1	1507.9	1503.5	3.1026	12
250		14 - 1	12.9	11.9	.6439	1.1		35.2	35.1	35.1	.0302	1.1	• •	1508.7	1504.8	1501 • 4	2 - 1 4 9 1	11
300.		12.4	11.8	10.8	.5069	1.1		35.2	35.1	35.0	.0603	1.1:		1504.0	1501 . 8	1498.1	1 . 7861	1.1
400'		11-1	10.5	10.2	. 2453	1.1		35 • 1	35.0	35.0	.0405	1.1	• •	1500 . 9	1498.9	1497.7	.8767	1.1
500 .		11 · C	9 . 8	9 . 5	. 4268	1.1	• •	35 • 1	35.0	34.9	00447	11		1502 • 3	1498.0	1496.8	1.5804	11
600 .		10 • 1	9.2	8 . 7	. 3957	10		35 - 1	35.0	35.0	·0422	10	• •	1500 • 4	1497.2	1495.3	1 • 41 43	10
		9 . 4	B . 6	8.0	. 3653	10		35.1	35.0	35.0	.0422	10	• •	1499.6	1496.8	1494.4	1 - 3453	10
308		8 . 2	7.9	7 . 4	. 2394	10		35 • 1	35.0	34.9	.0667	10	• •	1497 • 1	1495.7	1493.6	1.0042	10
900		7 . 8	7 • 3	6 . 8	.3674			35 • 1	35.0	34.9	.0667	9	• •	1497 • 1	1494.9	1493.0	1 - 4552	9
		7 - 4	6.7	6 • 1	.4093		• •	35.0	35.0	34.9	• 0500		• •	1497 • 2	1494.2	1492.0	1 - 6 6 0 4	9
	•	.6 . 6	6 • 1	5 • 7	. 2877			35 · C	34.9	34.9	.0500			1495 • 7	1493.7	1492.0	1 . 20 9 8	9
1200		5 • 9	5.6	5 • 2	.2179		• •	35.0	34.9	34.9	-0441		• •	1494.3	1493.3	1491 • 7	.8710	9
1300		5 - 4	5 • 1	4 • 8	. 2028		• •	34.9	34.9	34.8	.0333		• •	1493.9	1492.9	1491.5	.8775	9
		5.0	9 - 7	4 • 3	. 2404		• •	34.9	34.9	34 . 8	.0500		• •	1494-1	1492.6	1491 • 2	.9912	8
		4.5	4 + 2	3 • 9	. 1982		• •	34.9	34.9	34.8	0518	8		1493.6	1492.3	1491.0	.8812	7
		3 • 6	3 • 3	3 • 2	.1272		• •	34.9	34.8	34.8	·0378	7		1493.9	1492.9	1492 - 4	•5336	7
	•	2 . 9	2 + 7	2.6	.6951		• •	34.8	34.8	34.7	.0378	-	• •	1495 • 2	1494.5	1493.8	• 4451	
	•	2 - 5	2.2	2.0	. 2582		• •	34.8	34.8	34.7	.0516		• •	1502.0	1500.6	1499.9	1.0342	4
4		8 . 1	1 • 7	1 + 7	. 0577		• •	34.8	34.7	34.7	.0500	4	• •	1507.5	1507.4	1507.2	1500	7
4600 .		1 • 4	1 • 4	1 . 4	. CCGO	1	• •	34.7	34.7	34.7	• 0000	1	• •	1523.4	1523.4	1523.4	.0000	- 1

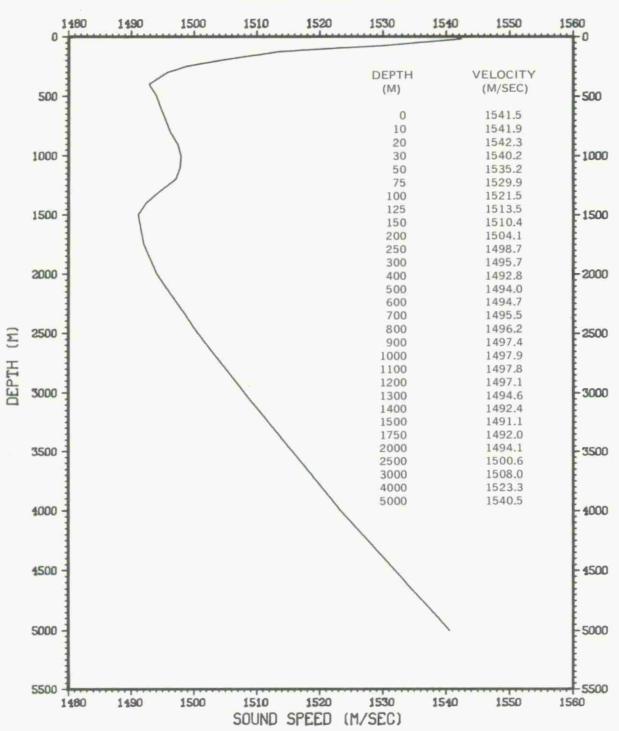
#### PROVINCE 8 OCT - NOV



## PROVINCE 9 DEC - FEB

			TEMP	ERATUR	E (C)			SA	LINITY	(PPT)			VELOC	ITY (M/S	EC)	
DEPTH		мах	PEAN	HIN-	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM	MAX	MEAN	HIN	ST DEV	NUM
0	• •	28.2	27.3	25.1	.9236	12	 35.4	35.1	34.9	.1992	12	 1542.3	1540.2	1535.4	1.9727	12
10		28.2	27.3	24.8	1.0166	12	 35.4	35.1	34.9	.1913	12	1542.4	1540.4	1534.8	2.1919	12
20		28.4	27.3	24.7	1.0942	1.2	35.4	35 - 1	34.9	.1782	12	 1542.8	1540.6	1534.7	2.3766	12
30		28.3	27.1	24.5	1.0740	12	35.4	35 . 1	34.9	.1782	12	 1542.8	1540.1	1534.5	2.3388	12
50		28.1	26.0	23.6	1.4640	12	 35.4	35 . 1	34.9	.1603	12	1542.8	1538.0	1532.3	3.3494	12
75		27.9	22.6	20.9	1.8211	12	35.3	35 . 1	34.9	.0996	12	1542.6	1530.2	1525.8	4.3408	12
100		25 • 1	19.4	16.6	2.2281	12	35.3	35.2	35.1	.0515	12	 1536.8	1522.0	1514.3	5.9431	12
125		21.4	16.8	19.5	1.9660		35.3	35.2	35.1	.0622	12	 1528.0	1515.1	1508.2	5.7169	12
		18.6	15.0	13.0	1.7728	12	35.4	35.2	35.1	.0779	1.2	1520.9	1510.1	1503.5	5.4373	12
200		15.1	13.0	11.2	1.3331	12	 35.3	35 . 1	35.0	.1084	12	 1511.3	1504.3	1498.1	4.5304	12
250		12.9	11.5	10.2	.9829	1.1	 35.2	35.0	34.9	.1027	1.1	 1504.7	1499.8	1494.9	3.5841	1.1
		11.6	10.6	9.3	.8882	11	 35.1	35.0	34.8	.0820	1.1	 1501.2	1497.4	1492.5	3.3154	1.1
400		10.6	9.5	8.8	.6389	1.1.	35.0	34.9	34.8	.0539	1.1	 1499.1	1495 . 1	1492.3	2.3417	1.1
500		9.3	9.1	8.5	. 2464	11	35.1	34.9	34.8	.0905	1.1	 1495.9	1495.0	1493.0	.9347	1.1
600		9.2	8.6	7 . 7	.4045	1.1	35.1	34.9	34.7	.1183	1.1	1497.6	1494.8	1491.6	1.6470	1.1
700		8.6	8 . 1	7 . 4	.3713	10	35.1	35.0	34.8	.0843	10	 1496.9	1494.9	1491.9	1.5076	10
800		8.2	7.7	7 . 0	.4089	1.0	35.1	35.0	34.8	.0843	10	 1496.7	1495 . 1	1492.0	1.6635	10
900		7.9	7 . 4	6.5	.5310	9	35.0	34.9	34.8	.0726	9	 1497.4	1495.3	1491.7	2.1528	9
1000		7.6	7.0	6.0	.6653	8	35.0	35.0	34.9	.0518	8	 1497.9	1495.4	1491.6	2.6897	8
1100		7.2	6.6	5.7	.6824	7	 35.0	34.9	34.8	.0787	7	1497.8	1495.4	1491.7	2.7805	7
1200		6.6	5.9	5 - 1	.6137	7	35.0	34.9	34.8	.0690	7	 1497.1	1494.4	1491.2	2.4812	7
1300		5.5	5 . 1	4.5	. 4401	6	34.9	34.9	34.8	.0516	6	 1494.6	1492.9	1490.3	1.9136	6
1400		4.7	4.4	4.0	.2739	6	 34.8	34.8	34.8	.0000	6	1492.9	1491.8	1489.8	1.2090	6
1500		4 - 1	3.9	3.6	.1862	6	34.8	34.8	34.8	.0000	6	 1491.8	1491 • 1	1489.8	.7581	6
1750		3.3	3.1	3.0	.1291	4	34.8	34.8	34.8	.0000	4	 1492.7	1492.0	1491.3	.5944	4
2000		2.7	2.6	2.6	.0577	3	34.8	34.8	34.8	.0000	3	 1494.5	1494.1	1493.8	.3786	3
2500		2 . 1	2.1	2 • 1	.0000	1	34.8	34.8	34.8	.0000	1	 1500.4	1500 . 4	1500.4	.0000	1
3000		1.9	1.9	1.9	.0000	i	 34.7	34.7	34.7	.0000	1	 1507.9	1507.9	1507.9	.0000	1

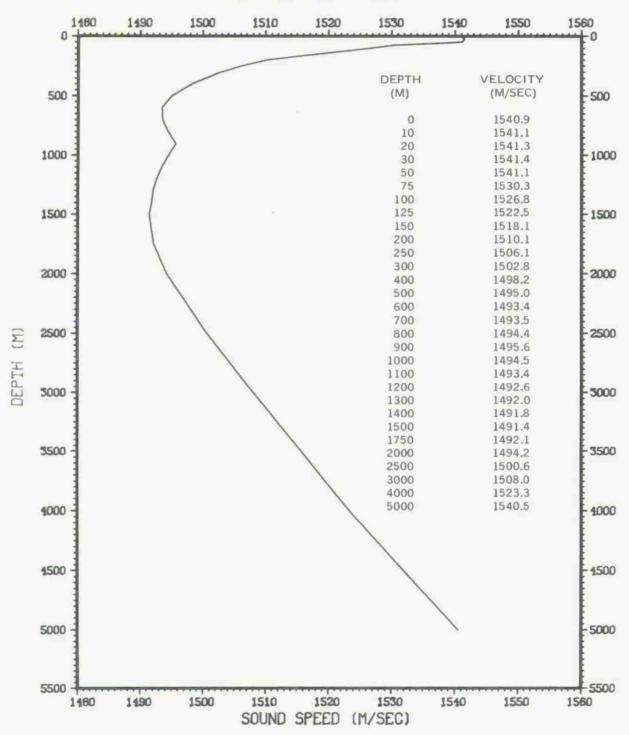
#### PROVINCE 9 DEC - FEB



## PROVINCE 9 MAR - MAY

		TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				AEFOC	ITY (H/S	EC)	
DEPTH (M)	MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUH		MAX	MEAN	MIN	ST DEV	NUM
0.00	29.9	28.8	27.8	.6754	14	٠.	35.5	34.9	34.5	.3180	3.40		1546.0	1543.3	1540.8	1.6734	1 4
0		28.7	27.7	.6928	14		35.5	34.8	33.1	.5816	14		1545.6	1543.0	1541.0	1.5324	14
10 ••	29.7	28.5	27.6	.6197	14		35.5	34.9	34.5	.3183	14		1545.0	1543.0	1540.9	1.3835	14
20 ••		27.9	27.4	.5676	14		35.6	35.0	34.5	.3197	14		1545.3	1541.9	1540.3	1.3167	14
30 **	29.5			1.7191	1.4		35.5	35.1	34.7	.2134	1.4		1542.7	1536.1	1530.8	3.9742	14
50 • •		25.2	23.0	2.1570	14		35.6	35.2	35.0	1492	14		1540.2	1527.7	1519.6	5.5656	14
75 ••		21.6	18.5		1.4		35.6	35.2	35.1	.1223	14		1538.5	1522 . 1	1509.5	7.2609	14
100	25.6	19.4	15.0	2.6319		• •	35.5	35.3	35.1	.0938	14		1537.6	1517.9	1504.5	8.3767	14
125 ••		17.8	13.4	2.9185			35.4	35.3	35.1	.0756	1.4		1519.0	1512.8	1500.4	6.2514	1 4
150 ••		15.9	12.1	1 . 9758	14		35.3	35.2	35.0	.0975			1514.7	1506.4	1498.9	4.9922	14
200		13.6	11.5	1.4950			35.3	35.1	35.0	.0949	14		1510.0	1502.5	1497.2	4.3749	14
250 ••		12.2	10.8	1 . 2408	14		35.3	35.0	34.9	.1269	14		1506.9	1499.5	1494.7	4.0170	14
300 ••		11.2	9.9	1.0960				34.9	34.8	.0816	13		1501.7	1496.3	1494.0	2.3493	13
400 ••		9.9	9.2	.6408	1.3		35.1	-	34.8	.0888	12		1496.5	1494.7	1492.0	1.3908	12
500 ••		9.0	8.3	.3516	12		35.0	34.9		1084	12		1497.4	1494.4	1491.6	1.8047	12
600		8.5	7 . 8	. 4522	12		35.1	34.9	34.8	.0953	12		1497.6	1494.4	1442.3	1.5501	12
700 ••		8.0	7.5	.3793	12		35.1	34.9	34,8	.0669	12		1496.2	1494.2	1492.6	1.0596	12
800 **		7.5	7 • 1	. 2667	12		35.1	34.9	34.9		11		1495.6	1493.9	1492.3	.9176	1.1
900		7.0	6.6	. 2382	11	• •	35.0	34.9	34.9	.0405	1.1		1494.5	1493.3	1491.5	1.0271	11
1000		6.5	6.0	. 2573	1 1	• •	35.0	34.9	34.9	.0302			1494.1	1492.5	1441.0	. 9914	10
1100		5.9	5.5	. 2558	10	• •	34.9	34.9	34.8	.0316	10		1493.6	1492.0	1490.2	1.1963	10
1200 -	5.7	5.3	4.9	.2797	10		34.9	34.9	34.8	.0516			1494.1	1491.6	1490.3	1.2419	10
1300 **	5.4	4 . 8	4.5	.3011	10		34.9	34.8	34.8	.0527	10		1493.2	1491.5	1490.2	1.0292	8
1400 .	4.8	4 . 4	4 . 1	.2390	8		34.9	34.8	34,8	.0463	8		1492.1	1491.3	1490.1	.7520	8
1500 **	4.1	3.9	3.7	.1604	8	• •	34.8	34.8	34.7	.0354	_		1493.7	1492.0	1490.9	.9103	8
1750 •	3.5	3.1	2.9	.2204	8		34.8	34.8	34.7	.0463	8 7		1495.3	1494.1	1493.1	.6925	7
2000 **	2.9	2.7	2.4	.1618	7		34.8	34.8	34.7	.0535			1500.7	1500.5	1500.4	.2121	2
2500	2.2	2.1	2 . 1	.0707	2		34.9	34.8	34.8	.0707	2	• •	1507.7	1507.7	1507.7	.0000	1
3000 •	1.8	1.8	1.8	.0000	1	• •	34.7	34.7	34.7	.0000	1		[30/0/	. 50/4/	, , ,	,	

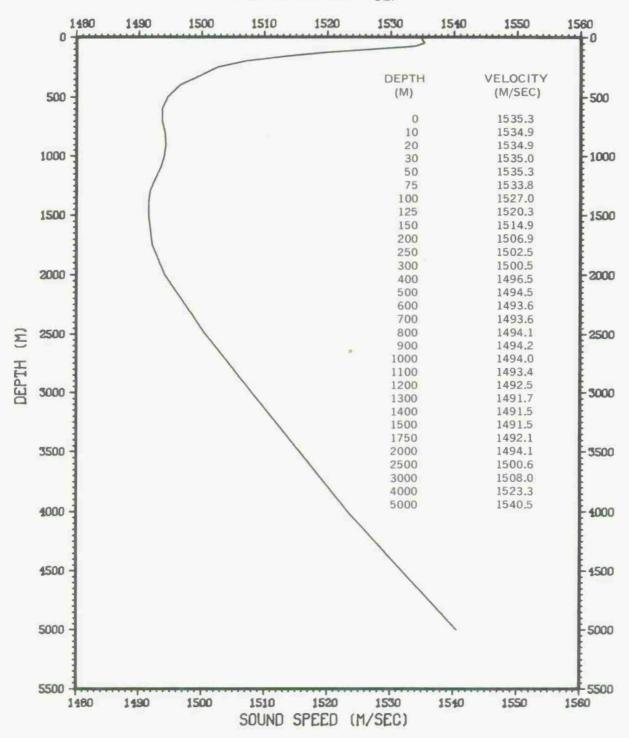
#### PROVINCE 9 MAR - MAY



## PROVINCE 9 JUN - SEP

			TEMP	ERATUR	E (C)			SA	LINITY	(PPT)				VELOC	ITY (H/S	ECI	
DEPTH											E		14 4 4	M.F. A.A.	MIN	ST DEV	NUM
[ 24 ]		MAX	MEAN	HIN	ST DEV	NUM	MAX	HEAN	MIN	ST DEV	NUM		MAX	MEAN	13 T M	21 OF A	пуп
0	• •	25.5	25.0	24.2	.3192	2.9	35.4	35.2	34.9	.1354	29		1536.1	1535 . 1	1533.3	.7093	29
10	• •	25.5	25.0	24.2	.3190	29	 35.4	35.2	34.9	. 1461	29		1536.2	1535.2	1533.4	.7098	29
20		25.6	25.0	24 - 1	.3345	29	 35.4	35.2	34.9	.1442	29		1536.6	1535.2	1533.4	.7655	29
30		25.5	24.9	23.9	. 3634	29	 35.4	35.2	34.9	.1461	29		1536.5	1535.3	1533.0	.8308	29
50	• •	25.4	24.7	22.8	.5003	29	 35.4	35.2	34.9	1545	29		1536.8	1535.2	1530.6	1.2313	29
75		25.2	23.9	19.5	1.3158	29	35.3	35.2	34.9	.1376	29		1537.0	1533.6	1522.2	3.3448	29
100		25.2	21.8	17.6	2.0515	29	35.3	35.2	34.9	.1146	29		1537.4	1528.5	1517.3	5.3677	29
125		22.5	19.0	15.1	1.9692	29	35.4	35.2	35.0	.0882	29		1531.0	1521.7	1510.1	5.5555	29
150		19.2	16.8	13.6	1.6053	29	35.4	35.2	35.1	.0682	29		1522.7	1515.6	1505.4	4.8942	29
200		16.0	14.1	11.7	1.1245	29	 35.3	35.2	35.0	.0845	29		1514.2	1507.9	1499.6	3.7486	29
250		14.1	12.5	10.4	.9165	29	35.3	35 • 1	34.9	.0860	29		1509.0	1503.4	1495.8	3.2232	29
300		12.9	11.3	9.7	.7376	29	 35.2	35.0	34.8	.0772	29		1505.8	1500.1	1493.9	2.6855	29
400		10.8	9.8	8.9	. 4348	29	35.0	34.9	34.8	.0528	29		1499.9	1496.0	1492.6	1.6284	29
500		9.4	8.9	8.1	.3518	29	35.0	34.8	34.7	.0857	29		1496.4	1494.2	1491.2	1.3844	29
600		9.0	8.2	7.2	. 4516	29	 35.0	34.8	34.7	.0862	29		1496.5	1493.4	1489.4	1.7722	29
700		8.7	7.8	6.5	.5727	29	35.1	34.9	34.7	.0996	29		1497.0	1493.3	1488.1	2.2792	29
800		8.4	7.3	6.2	.5640	28	35.1	34.9	34.7	.0905	28		1497.5	1493.1	1488.7	2.2660	28
900		7.9	6.8	5 . 8	.5552	27	35.0	34.9	34.8	.0679	27		1497.4	1493.0	1488.6	2.2689	27
1000		7.3	6.3	5.4	.5006	25	35.0	34.9	34.8	.0688	25		1496.7	1492.5	1488.8	2.0424	25
1100		6.9	5.8	4.9	.5225	23	35.0	34.9	34.8	.0671	23		1496.7	1492.2	1488.5	2.1247	23
1200		6.4	5.3	4.6	.4843	23	 35.0	34.9	34.8	.0635	23		1496.6	1491.8	1488.7	2.0666	23
1300		5.8	4.8	4 . 1	. 4582	23	34.9	34.8	34.7	.0541	23		1495.7	1491.4	1488.5	1.8984	23
1400		5.4	4 . 3	3.7	.3838	21	34.9	34.8	34.7	.0539	21		1495.8	1491.1	1488.6	1.6066	21
1500		5.1	3.9	3.5	. 3294	21	34.9	34.8	34.7	.0498	21		1496.3	1491.0	1489.2	1.4527	21
1750		3.8	3.1	2.9	.2058	18	34.8	34.8	34.7	.0428	18		1494.9	1491.9	1491.1	.8977	18
2000		2.7	2.6	2.5	.0778	12	34.8	34.8	34.7	.0492	12		1494.5	1494.1	1493.5	.3306	12
2500		2.3	2.2	2 . 1	.0632	11	 34.8	34.7	34.7	.0467	1.1		1501.0	1500.7	1500.3	.2102	11
3000		2.0	1.9	1.8	.0816	4	 34.7	34.7	34.7	.0000	- 4	• •	1508.4	1508.1	1507.7	. 2986	4

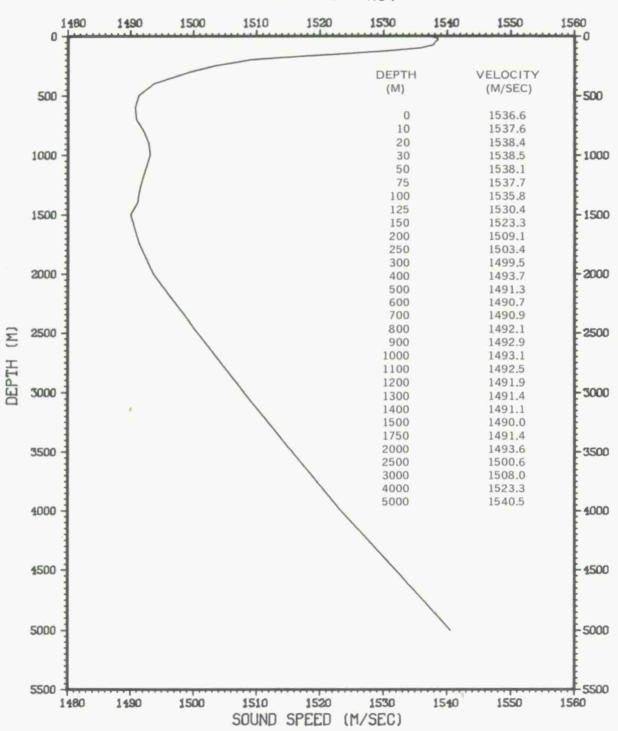
# PROVINCE 9 JUN - SEP



## PROVINCE 9 OCT - NOV

			TEMP	ERATUR	RE (C)			SA	LINITY	(PPT)		VELOCITY (M/SEC)								
DEPTH																				
(H)		MAX	MEAN	MIN	ST DEV	NUH	HAX	MEAN	MIN	ST DEV	NUM		MAX	HEAN	MIN	ST DEV	NUH			
0	• •	26.5	26.1	25.6	.4031	4	35.4	35.3	35.1	.1414	4	• •	1538.7	1537.7	1536.6	.9878	4			
10		26.5	26.1	25.8	,3109	4 **	35.4	35.3	35.2	.0957	4	• •	1538.8	1538.0	1537.1	.7676	4			
20	0 0	26.4	26.1	25.7	.3109	4	35.4	35.3	35.2	.0816	4		1538.6	1538.2	1537.2	.6733	.4			
30		26.2	26.0	25.7	.2217	4	35.3	35.3	35.3	.0000	4		1538.5	1538 . 1	1537.2	.5909	4			
50		25.9	25.5	24.9	.4193	4	35.4	35.3	35.3	.0500	4		1538.1	1537 - 1	1535.7	1.0079	4			
75		25.5	23.9	21.1	1.9891	4	35.3	35.2	35.2	.0577	.4		1537.7	1533.7	1526.5	5.0659	4			
100		24.6	21.4	16.8	3.3649	4	35.2	35.2	35.2	.0000	14		1535.8	1527 . 4	1514.8	9.0886	4			
125		22.3	18.9	14.9	3 . 1775	4 • •	35.3	35.2	35.2	.0500	4		1530.4	1521.1	1509.3	9.0981	4			
150		19.5	17.1	13.9	2.3698	4	35.4	35.2	35.1	.1258	4		1523.3	1516.3	1506.4	7 . 1844	4			
200		14.4	13.8	13.0	.5888	4	35.2	35.2	35.1	.0500	4		1509.1	1507.0	1504.2	2.0726	4			
250		12.7	12.3	11.9	.3862	4	35.1	35 . 1	35.0	.0500	4		1504.2	1502.6	1501.4	1.3961	4			
300		11.6	11.2	11.0	.2517	4	35.1	35.0	35.0	.0577	4		1501.1	1499.8	1499.0	.9142	4			
400		10.2	9.7	9.2	. 4573	4	34.9	34.8	34.8	.0577	4		1497.5	1495.7	1493.7	1.7017	4			
500		9.2	8 . 6	8 . 1	. 4546	4 .0	34.9	34.8	34.8	.0577	4		1495.6	1493.3	1491.3	1.7689	4			
600		8 . 4	7.9	7.5	. 3873	4 **	34.9	34.8	34.8	.0577	4		:493.9	1492.3	1490.7	1.3687	4			
700	0.0	7.7	7.4	7 . 1	. 2944	4	34.9	34.9	34.8	.0500	4		1493.0	1491.9	1490.9	1.1045	4			
800		7.4	7.0	6,6	.3266	4	34.9	34.9	34.8	.0500	4		1493.6	492.1	1490.5	1.2662	4			
900		7.0	6.7	6.4	.3055	3	34.9	34.9	34.8	. 0577	3		1493.8	1492.7	1491.3	1.2662	3			
1000		6.4	6.2	5 . 8	. 3464	3 • •	35.0	34.9	34.8	.1000	3		1493.1	1492.3	1490.7	1.3856	3			
1100		5.9	5.7	5.3	.3215	3 **	34.9	34.8	34.8	.0577	3		1492.5	1491.6	1450.1	1.3077	3			
1200		5.3	5.1	4 . 8	. 2646	3	34.9	34.8	34.8	.0577	3		1491.9	1491.0	1489.8	1.0970	3			
1300		4.8	4 . 6	4 . 4	.2082	3 **	34.9	34.8	34.8	.0577	3		1491.4	1490.7	1489.6	.9452	3			
1400		4.3	4.2	4.0	.1732	3	34.9	34.8	34,8	.0577	3		1491.2	1490.6	1489.6	.8963	3			
150C		4 . 1	3.9	3.6	. 2517	3 • •	34.8	34.8	34.8	.0000	3		1491.8	1490.9	1489.8	1.0066	3			
1750		3.0	3.0	3.0	.0000	2	34.8	34.8	34.8	.0000	2		1491.6	1491.5	1491.4	.1414	2			
2000		2.6	2.5	2.5	.0707	2 ••	34.8	34.8	34.8	.0000	2		1494.1	1493.9	1493.6	.3536	2			
2500		2.2	2.2	2.2	.0000	2 • •	34.8	34.8	34.8	.0000	2		1500.9	1500.7	1500.6	.2121	2			
3000		1.9	1.9	1.9	.0000	2	34.8	34.7	34.7	.0707	2		1508.1	1508.0	1507.9	.1414	2			

## PROVINCE 9 OCT - NOV

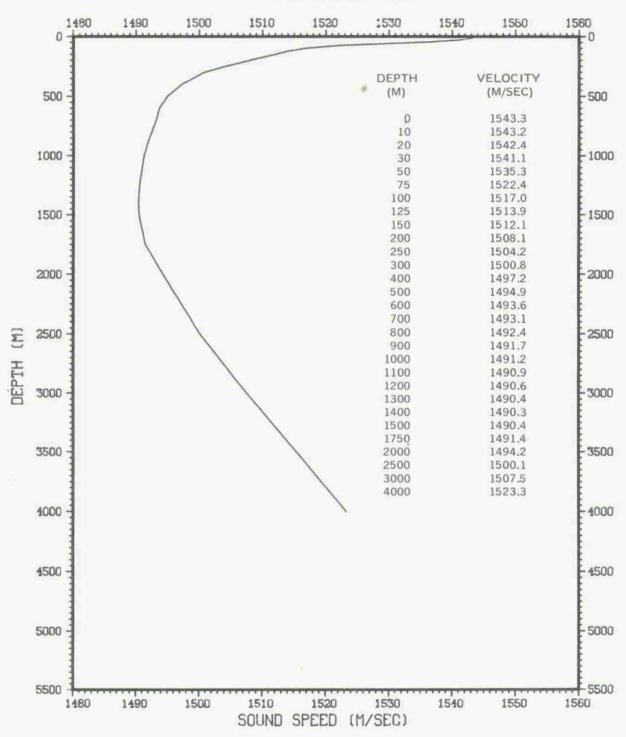


## PROVINCE 10 DEC - FEB

المراج المراجعة المرا

		TEMPERA	TURE 10	:)		SALINIT	Y (PPI)			VELOCITY (H/SEC)						
DEPTH																
CHI	MAX	MEAN	HIN	ST DEV	MAX	MEAN	MIN	ST DEV		MAX	MEAN	HIN	ST DEV	NUM		
0 ••	29.98	28.37	26.12	-8381 ••		35.00	32.08	-4074			1542.36	1535.3	1.9267	69		
10 ••	29.31	28.17	25.55	.8965 **		35.04	34-16	-2141			1542.16	1535-3	1 - 96 13	69		
20 • •	29.18	27.93	24.92	.9655 • •	35.75	35.07	34.83	-1761		1544-4	1541-81	1534.8	2.0915	6.9		
30 • •	29.01	27.36	24.45	1.0663 **	35.73	35-11	34.84	-1542		1544.3	1540.76	1534 - 1	2 - 3 199	69		
50 ••	28.41	25.48	20.04	1.6972 **	35.67	35.16	34 -85	-1336		1543.5	153E - 84	1523.2	4.0154	65		
75 • •	27.42	22.35	17.61	2.3144	35.50	35.16	34.83	-1079		1542.0	1529.53	1516.7	5 - 9677	69		
100 **	26.65	19.56	15.57	2.4492	35.42	35-14	34.92	-0796		1540.6	1522.46	1511.0	6 - 7039	69		
125	24.92	17.38	14.06	2.2593 **	35.36	35.15	35.04	.0689	0.0	1536.9	1516.65	1506-5	6 -5 007	69		
150	21.64	15.91	13.50	2.0094	35.40	35.15	35.05	-0838		1529-2	1512-68	1505-1	6.0806	69		
200 • •	18.51	13.98	12.07	1.5746	35.47	35.14	35.03	-0974		1521.8	1507.42	1501 - 0	5-0803	69		
250 **	16.54	12.67	11.35	1.2226	35.48	35.10	34.98	-1058		1516.7	1503.88	1459.2	4 - 1570	69		
300	15.26	11.69	10.41	.9631 **	35.36	35.04	34.92	-1004		1513.6	1501.30	1496-7	3 - 3985	69		
400	12.96	10.31	9.29	.7101 **	35.22	34.93	34.80	-0787		1507.6	1497.91	1454.2	2.6169	6 9		
500 **	11.47	9.24	8.35	.5262	35.05	34.85	34.75	-0440	0;0	1503.9	1495.57	1492 -2	1 . 97 86	67		
600 ••	9 - 75	8.39	7.77	.3868	34 - 87	34.81	34.70	.0340		1499.1	1493.99	1491.6	1.4684	46		
700	8.37	7.76	7.31	.3507	34.90	34 - 82	34.79	-03(30)	9.0	1495 -5	1493 - 22	1491.5	1.3310	11		
800	7 - 95	7.17	6.79	.3706 **	34.91	34.83	34.75	-0459			1492.58	1491 - 1	1-4275	11		
900 **	7-71	6.67	6.27	.4381	34.91	34.82	34 - 76	-0465		1496.3	1492.30	1490-7	1 -7 37 2	11		
1000	7 - 64	6.20	5.74	.5401 * *		34.82	34.77	.0498			1492.06	1450-2	2-1412	11		
1100	5-89	5.48	5.24	.2012 **		34.79	34.76	.0400			1490.84	1489.9	-86 18	8		
1200 **	5 - 43	5.01	4.79	.2318 **	34.85	34.78	34.75	.0315			1490-57	1489.6	1-0110	8		
1300 ••	5-04	4.55	4.35	.2536 ••		34 - 78	34.75	-0213			1490.35	1489.5	1 - 0863	8		
1900 **	4.66	4.12	3.89	.2717 • •	34.70	34.77	34.75	.0128			1490.22	1489.2	1.1732	8		
1500	4-27	3.75	3.44	-2742	34.78	34.76	34.73	.0155		1492-5	1490.31	1489.0	1-1982	8		
1750	3.41	2.99	2.70	-2494 **	34 - 77	34.76	39.73	+0138		1493-1	1491.29	1450-0	1.06 37	7		
2000	2-76	2.69	2.63	.0919	34.77	34.74	34 - 71	.0424		1494-6	1494.30	1494.0	-9 293	2		
2500 **	2.08	2 .08	2.08	.0000 **	34.77	34.77	34 -77	.0000			1500 -20	1500-2	.0000	1		
3000 ••	1-76	1.76	1.76	.0000 **	34.75	34.75	34.75	.0000		1507.3	1507.30	1507-3	-0000	1		

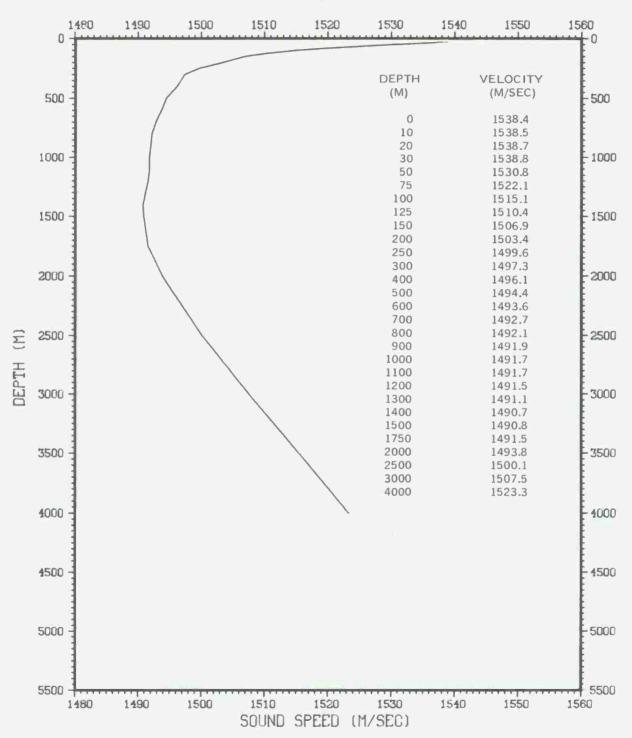
#### PROVINCE 10 DEC - FEB



## PROVINCE 10 MAR - MAY

TEMPERATURE (C)									SA	LINITY	(PPT)		VELOCITY (M/SEC)						
DEPTH		MAX	MEAN	n I N	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM		
4.		20 6	28.0	25.8	1.1667	25		35.4	34.9	34.4	. 2309	25	 1544.9	1541.5	1536.7	2.5364	25		
U		29.6	28.0	25.8	1.1599	-		35.3	34.9	34.4	. 2055	25	 1544.8	1541.6	1536.8	2.5569	25		
		29.5	27.8	24.6	1.2359	25		35.3	34.9	34.5	.1803	25	 1544.7	1541.3	1534.2	2.7452	25		
	• •	29.3	_		1.8239			35.3	34.9	34./	.1658	25	 1544.5	1539.6	1525.2	4.2192	25		
40	• •	29.2	76.9	20.9	2.5818			35.4	35.0	34.7	. 1535	25	 1542.7	1533.6	1522.0	6.2306	25		
14 (2)		28.2	24.2	19.6	2.6953		• •	35.3	35.1	34.9	.1052	25	 1540.4	1526.8	1514.3	6.9413	25		
		76.8	21.3	16.8		~ ~		35.3	35 • 1	34.9	.1208	25	 1535.6	1521.0	1509.4	7.4177	25		
		24.7	19.1	15.1	2 . 7 2 2 0	- 20		35.4	35.1	34.9	.1190	25	1533.3	1516.4	1505.5	7.5607	25		
		23.5	17.3	13.7	2.6218	6		35.5	35.2	34.8	.1447	25	 1531.6	1513.0	1502.8	7.5585	25		
150		22.7	16.0	12.8	2.5303		• •	35.5	35.1	34.9	.1399	25	1523.5	1507.2	1500.2	€6.263U	25		
200		19.3	13.9	11.8			• •	35.4	35.0	34.9	.1003	25	 1514.7	1503.1	1497.9	4.4332	25		
250		16.0	12.5	11.0	1 - 3035			35.2	35.0	34.9	.0866	25	 1507.5	1500.0	1496.3	3.2484	25		
300		13.5	11.5	10.3	.9101			35.1	34.9	34.8	.0881	25	 1503.3	1497.4	1494.3	2.8758	25		
400		11.8	10.2	9.3	• 7767		• •	35.0	34.8	34,7	.0600	25	 1500.9	1495.4	1491.8	2.5645	25		
	• •	10.7	9.2	9.2	.6934		• •	34.9	34.8	34.7	.0473	25	 1498.1	1493.8	1490.5	1.9700	25		
500		9.5	8 • 3	7 . 5	• 5300	-		34.9	34.8	34.7	.0500	25	 1497.6	1492.7	1489.5	1.7459	25		
, w.o.		8.9	7 . 6	6.8	. 4537			34.9	34.8	34.6	.0637	24	 1497.6	1491.8	1488.9	1.8849	24		
800		8.5	7.0	6.3	• 4842			34.9	34.8	34.6	.0779	24	1497.3	1491.3	1488.3	2.0315	24		
		8.0	6.4	5.7	.5181	-		34.9	34.8	34.4	.0647	23	1496.7	1491.0	1488.4	1.4925	23		
1000		7 . 4	5.9	5.3	.5015	- 3		34.8	34.8	34.6	.0573	23	1495.6	1490.7	1488.0	1.8030	23		
1100		6.7	5.5	4.8	.4470	- 4		34.8	34.8	34.7	.0456	22	1493.6	1490.6	1488.2	1.4651	22		
1200		5.8	5.0	4.5	.3483		• •		34.8	34.7	.0436	21	 1493.3	1490.4	1488.4	1.2339	21		
1300		5.3	4.6	4 + 1	.3002	- 1	•	34.8	34.8	34.7	.0485	18	1493.5	1490.7	1488.9	1.1216	18		
1400		4.9	4.2	3 . 8	. 2585		• •	_	_		.0511	18	1493.7	1490.8	1489.4	1.1224	18		
1500		4.5	3.8	3.5	. 2593	9 67	• •	34.8	34.8	34.7	.0507	17	 1494.1	1491.7	1490.7	. 9556	17		
1750		3.6	3 . 1	2.9	. 2144		• •	34.8	34.7	34.7	.0447	16	1494.6	1493.7	1492.8	.4801	16		
2000		2.8	2.5	2.4	.1094	10		34.8	34.7	34.7	0000	9	1501.0	1500 - 1	1499.4	.5263	9		
2500		2.3	2.0	1.9	.1424		• •	34.7	34.7		.0000		 1507.5	1507.3	1507.0	. 1941	6		
3000		1.8	1 . 7	1.7	.0516	6	• •	34.7	34.7	34.7	. 0000		, 50. 05						

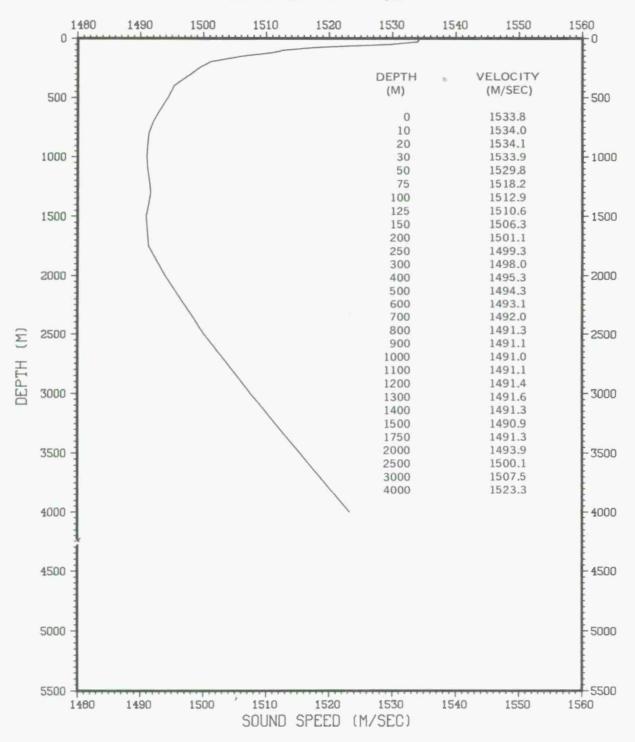
#### PROVINCE 10 MAR - MAY



## PROVINCE 10 JUN - SEP

		ERATUR	(C)			SA	LINITY	(PPT)		VELOCITY (M/SEC)							
DEPTH (M)	P1 A. J	MEAN	n I N	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
<b>0</b> €	• 28.	25.0	24.0	1.0952	26		35.3	35 • 1	34.2	. 2658	26		1542.9	1534.8	1532.1	2.3817	26
10 •			24.0	1.1085	26		35.3	35 . 1	34.2	. 2658	26		1543.0	1534.8	1532.3	2.4198	26
20 •			23.3	1.1670	26	W. a.	35.3	35 • 1	34.2	. 2658	26		1543.2	1534.7	1531.1	2.5899	26
30 •			22.2	1.1548	26		35.4	35 . 1	34.3	. 2572	26		1543.0	1534.4	1528.6	2.6793	26
50 •			19.0	1.7510	26		35.3	35.1	34.7	.2049	26		1536.5	1531 • 4	1520.4	4.4366	26
75 •			14.6	2.9606	26		35.3	35.1	34.7	.1357	26		1536.2	1522.8	1507.6	7.9697	26
100 •			13.7	2.6685	26	4 4	35.3	35 . 1	34.9	.0977	26		1533.7	1517.3	1505.0	7.5457	26
125 •			13.2	2.2205	26		35.3	35.1	35.U	.0647	26		1529.7	1513.1	1503.6	6.6028	26
150 •			12.3	1.7636	26		35.3	35 . 2	35.0	.0703	26		1525.0	1509.7	1501.2	5.4766	26
200 •			11.7	1.2962	26		35.4	35 . 1	35.0	.1008	26		1516.9	1504.9	1499.7	4.3402	26
250 •		-	11.1	1.0995	26		35.3	35.1	35.0	.0948	26		1512.3	1502 • 1	1498.3	3.8065	26
300 •			10.2	.9920	26		35.3	35.0	34.9	.1033	26		1509.1	1499.8	1495.8	3.5508	26
400 •			9.2	.8100	26		35.2	34.9	34.8	.0981	26	• •	1505.5	1496.6	1493.8	2.9575	26
500 •			8.2	.5771	26		34.9	34.8	34.7	.0516	26		1500.7	1494.6	1491.6	2.1971	26
600 •			7.5	.4162	26		34.9	34.8	34.7	.0543	26		1496.8	1493.1	1490.3	1.5738	26
700 4			6.9	. 3751	25		34.9	34.8	34.7	.0572	25		1495.1	1492.0	1489.7	1.4461	25
800 •			6.0	.3062	24		34.9	34. B	34.7	.0637	24		1493.1	1491.3	1488.1	1.2265	24
90U •			5.8	.2723	24		34.9	34.8	34.7	.0408	24		1492.8	1490.9	1488.9	1.1390	24
1000 •			5.2	.3420	24		34.9	34.8	34.7	. 0537	24		1492.9	1490.6	1488.1	1.4095	24
1100 -		_	4.6	.3668	23		34.9	34.8	34.7	. 0626	23		1493.2	1490.6	1487.3	1.5179	23
1200 •			4.5	.3144			34.9	34.8	34.7	.0583	18		1493.1	1490.8	1488.6	1.3325	18
1300 •			4.2	.2640	18		34.9	34.8	34.7	.0471	18		1492.4	1490.8	1488.8	1 - 1474	18
1400 •			3.9	. 2523	17		34.8	34.8	34.7	.0470	1.7		1492.2	1490.8	1489.3	1.0351	1.7
1500 •			3.5	.2063	17		34.8	34.8	34.7	.0507	17		1491.9	1490.8	1489.2	.9027	17
			2.9	.1060	15		34.8	34.7	34.7	.0516	15		1492.3	1491.6	1491.0	. 3994	15
1750 •			2.5	.0579	14		34.8	34.7	34.7	.0363	1.4		1494.2	1493.8	1493.3	2464	1.5
2000 •			2.0	.0433	14		34.8	34.7	34.7	.0363	14		1500.6	1500 . 1	1499.7	. 2526	1.4
2506 •			1.7	.0405	11		34.7	34.7	34.7	.0000	1.1		1507.8	1507.5	1507.3	. 1555	1.1
3000 •			1.4	.0000			34.7	34.7	34.7	.0000			1523.5	1523.4	1523.2	. 1258	4
4000 •	1 .	7 1 4 7	1.07	40000	7		- 107	3	- 10								

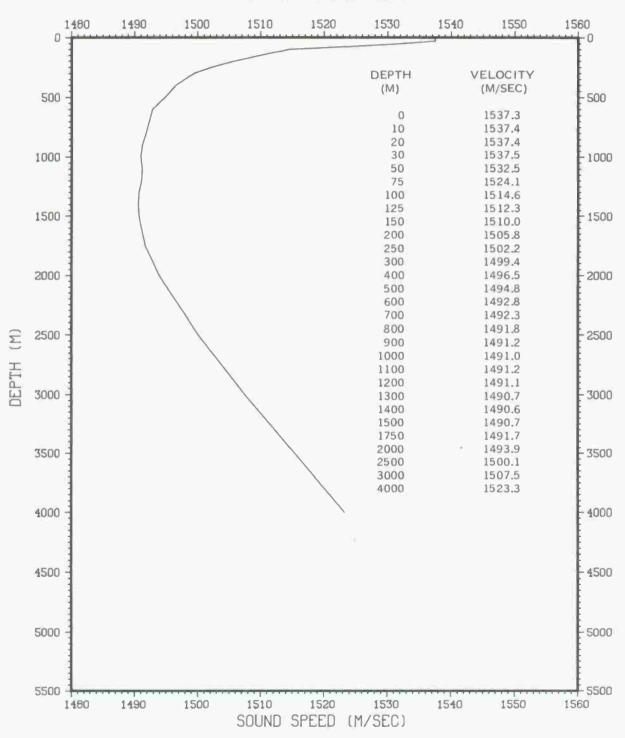
#### PROVINCE 10 JUN - SEP



## PROVINCE 10 OCT - NOV

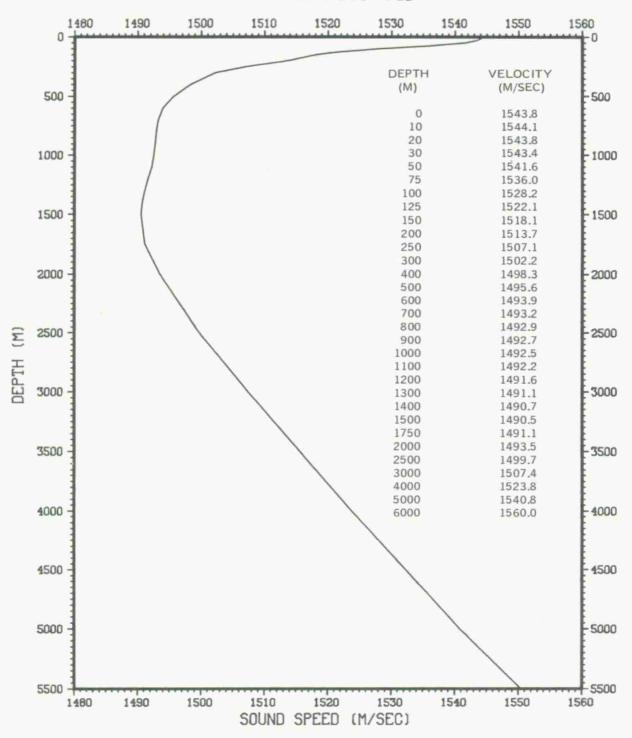
TEMPERATURE (C)									5 A	LINITY	(PPT)		VELOCITY (M/SEC)					
JEPTH (M)		MAX	MEAN	m1N	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM	MAX	MEAN	MIN	ST DEV	NUM	
-0		26.5	25.7	24.4	.7367	9		35.3	35.2	35.1	.0866	9	 1538.4	1536.8	1533.7	1.6897	9	
10		26.5	25.7	24.4	. 7379	9		35.3	35 . 2	35.0	.1093	9	 1538.5	1536.9	1533.9	1.6366	9	
20		26.4	25.7	24.4	.7348	9		35.3	35.2	35.1	.0726	9	1538.4	1537.0	1534.0	1.6853	9	
30		26.2	25.5	24.2	.7618	9		35.3	35.3	35.2	. 0500	9	 1538.5	1536.7	1533.8	b. 7706	9	
50		26.2	24.3	21.8	1 - 3491	9		35.3	35.3	35.2	.0500	9	 1538.8	1534.3	1528.0	3.2864	9	
75		25.8	22.2	19.1	2 . 1722	9		35.3	35.3	35.2	· U527	9	1538.2	1529.3	1521.0	5.5414	9	
100		23.7	19.5	16.8	2.5303	9		35.3	35.2	35.1	.0601	9	 1533.5	1522 . 4	1514.6	6.8999	9	
125		23.1	17.6	15.2	2.3686	9		35.3	35.2	35.1	.0601	9	 1532.5	1517.5	1510.3	6.6669	9	
150		21.3	16.0	14.0	2 - 1933	9		35.3	35.7	35.1	· U667	9	 1528.2	1513.2	1506.8	6.4333	9	
200		15.6	13.9	12.5	. 9880			35.2	35 - 1	35.1	.0500	9	 1512.9	1507 . 4	1502.8	3.2319	9	
250		14.1	12.7	11.8	. 9074			35.2	35.1	35.0	.0601	9	 1508.8	1504.1	1501.0	2.8004	9	
300		13.0	11.6	10.9	.7008			35.2	35.0	35.0	.0726	9	 1505.9	1501.1	1498.4	2.4837	9	
400		10.8	10.1	9.4	. 4428	-		35.0	34.9	34.8	. 4500	9	 1499.9	1497.1	1494.6	1.6523	9	
500		10.6	9.2	8.8	.5788	-		35.0	34.8	34.7	.0833	9	 1500.6	1495.4	1493.7	2 . 1955	9	
400		9.0	8.3	7.8	. 3775			34.9	34.8	34.7	.0601	9	 1496.4	1493.5	1491.7	1.5263	9	
700		7.8	7.5	7.0	. 2522			34.8	34.8	34.7	.0527	9	 1493.6	1492.3	1490.0	1.1069	9	
800		7.2	6.9	6.2	. 3536	9		34.8	34.8	39.7	.0500	9	 1492.8	1491 . 6	1488.6	1.4555	9	
900		6.8	6.4	5.6	.3822	9		34.9	34.8	34.7	.0601	9	 1492.8	1491.2	1487.8	1.5786	9	
1000		6.3	5.9	5.3	• 3005			34.9	34.8	34.7	.0601	9	 1492.5	1490.7	1488.3	1.2194	9	
1100		5.7	5.5	5.3	.1598	8		34.8	34.8	34.8	.0000	8	 1491.9	1490.7	1489.9	.6999	8	
1200		5.2	5.0	4.8	.1488	8		34.8	34.8	34.7	.0463	8	 1491.5	1490.5	1489.8	.6175	8	
1300		4.7	4.5	4.4	.1061	8		34.8	34.8	34.7	.0463	8	1491.2	1490.3	1489.6	.5392	8	
1400		4.3	4 - 1	3.9	.1302	8		34.8	34.8	34.7	.0518	8	 1491.0	1490.3	1489.3	.5303	8	
1500		3.9	3.8	3.5	.1195	В		34.8	34.7	34.7	. 0535	8	 1491.0	1490.4	1489.2	.5548	8	
1750		3.1	3.0	7.8	.1309	8		34.8	34.7	34.7	.0463	8	 1491.8	1491.3	1490.7	.4340	8	
2000		2.7	2.5	2.4	.0916	8		34.8	34.7	34.7	.0354	8	 1494.1	1493.6	1493.1	.3780	8	
2500		2.1	2.0	2.0	.0535	7		34.7	34.7	34.7	.0000	7	 1500.3	1500.0	1499.7	.1976	7	
3000		1.8	1.8	1.7	.0408	6		34.7	34.7	34.7	.0000	6	1507.7	1507.5	1507.3	.1761	6	
4000		1.3	1 . 3	1.2	.0707	-		34.7	34.7	34.7	.0000		 1523.0	1522.7	1522.4	. 4243	2	
7490		1.3	1 . 3	1 0 4	.0707	6		3767	370/	5401	.0000		300					

#### PROVINCE 10 OCT - NOV



		TEMP	LRATUR	E (C)			SA	1.1613 9	(PPT)			VELOCITY (M/SEC)						
DEPTH (H)	мах	HEAN	MIN	ST DEV	HITH	HAX	MEAN	(+) (+	ST DEV	NUM		XAN	MEAN	м 1 н	ST: DEV	NUM		
10	29.2	28.7	26.0	.3267	11 **	35 · 3 35 · 3	35.2	34 . M	·1673	11	• •	1544.1	1543.3	1541.9	· 8344 • 7395	$\begin{smallmatrix}1&1\\1&1\end{smallmatrix}$		
20	28.8	28 • 4	27 • 2	.4692	11 **	35 • 3	35.2	34.1	.1662	1.1		1544.0	1543.1	1540 . 5	1.0600	1.1		
30	28.6	2 F + C	26 . 6	.8429	11 ***	35.4	35.3	34 - 1	.1572	1.1		1543.7	1542 . 4	1539.3	1 . 7645	1.1		
50	28.4	26.6	23 . 5	1.7356	11	35.4	35.3	3= 1	.0701	1.1		1543.6	1540 - 1	1532.3	3.9911	1.1		
7-5,	25.8	23.6	19.8	2.1355	11 **	35.4	35.3	3602	• 7751	1.1	• •	1538.3	1532 . A	1523 - 1	5 . 4143	1.1		
10n ••	24.2	21+1	17.1	2.1781	11 **	35.4	35.3	35.02	· n647	1.1		1535 · D	1526.9	1515.7	5 . 9111	1.1		
125 00	21 • 4	18.6	16.1	1.4446	11 **	35 - 3	35.2	34.2	*F1705	1.1		1528.3	1520 · A	1513.2	4 - 1435	1.1		
15n ••	19.0	17.3	15.6	.9523	11 **	35.3	35.2	3 = . 2	• 2405	1.1		1522.2	1517.2	1511.9	2.8620	1.1		
200	16.5	15.7	14.0	.6714	11 **	35.2	35.2	36.01	•1.302	3.1		1515.5	1513.7	1509.6	2.0566	1.1		
25n • •	14.7	13.7	13.0	.5510	11 **	35.2	35.1	34 . 1	. 1-05	1.1		1510.6	1507.5	1505.2	1.8214	1.1		
3 G n	12.6	12 + 1	11 • 9	.3459	11 **	35 . 1	35.0	35.00	• U = 9 P	1.1	• •	1504.6	15C2.A	1500.5	1 . 1844	1.1		
460	1.0 . 9	10.5	10.0	. 2663	11	35.0	34.9	3409	• [ 467	1.1		1500+3	1498.7	1496 . 7	1 + 0348	1.1		
500 00	9.8	9.3	8 • 8	. 2834	11 **	34.9	34.9	34.9	· 0405	1.1		1497.7	1495.9	1493.9	1.0653	1.1		
60n · •	H . 9	8.5	8 . 1	. 2442	11 **	34.9	34.9	3400	. 0405	1.1		1496 . 3	1494.4	1492.8	. 9244	1.1		
700 00	8 . 2	7.9	7.5	. 2359	11 00	34.9	34.9	3400	.1422	1.63	• •	1494.9	1473.8	1492.2	.9371	10		
800 **	7 . 6	7 • 3	6 . 8	. 2754	10 .	34.9	34.9	3400	·17483	1.0		1494.4	1493.4	1491 . 2	1 - 1045	10		
90n	7 . 2	6.8	6.2	.3098	10 00	34.9	34.9	34 . !	• ,483	147		1494.4	1493 - 1	1490 . 4	1 · 29 A 7	1.0		
180n	6 . 8	6 + 3	5.7	.3621	7	34.9	34.9	34.15	• 2500	9		1494.6	1492.6	1490.2	1.4743	9		
110n **	6.2	5 . 8	5.3	.3312	6	34.9	34.8	3400	• 6548	6	• •	1493.9	1492 • 1	1490 - 1	1.3452	6		
1200	5 + 2	5+0	4 . 8	.1915	4 • •	34.9	34.A	34 . 8	• 0500	4		1491.6	1490.9	1489.9	. 7853	4		
130n	4 . 7	4 . 6	4 . 4	.1414	4	34.8	34 . F	34.0	•0000	4		1491 - 1	1490.7	1489.8	.6131	4		
1400	4 + 3	4 . 2	4.0	.1256	4	34.8	34.R	3400	•n590	44		1491.0	1490.6	1489.9	.4830	4		
150r	4 . 0	3 . 9	3 . 7	. 1555	4	34.8	34 . A	34 - 1	• 61 00	4		1491.5	1490.9	1490 . 2	.623A	4		
1750	3 • 3	3 + 1	2.9	.2062	4	34.8	34.8	3400	* 111 00	44		1492 - 7	1491.9	1491 • 1	.8421	4		
2000	2 . 7	7.5	2 . 4	. 1528	3 ••	34.8	34.5	34.6	•0:00	3		1494.4	1493.7	1493 - 1	.6658	3		
250c	2.5	7.0	1 + 9	.0707	2 • •	34.8	34.7	34 . 7	•1777	2		1500 - 0	1499.8	1499.6	.2828	2		
30CL	1 . 8	1 • 7	1 • 7	. 5767	2 • •	34.8	34.7	34.7	· 1:707	2		1507.4	1507 - 2	1507 - 1	+2121	2		

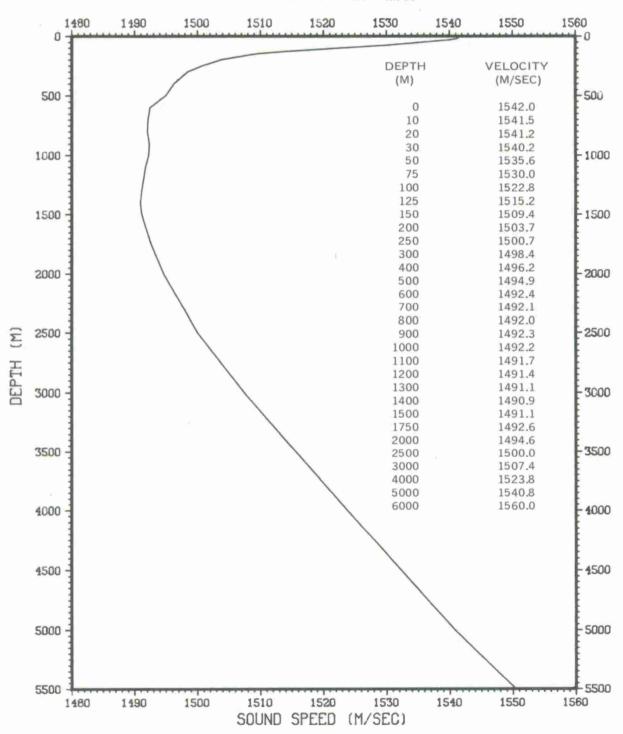
## PROVINCE 11 DEC - FEB



### PROVINCE 11 MAR - MAY

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (M/S	ECI	
DEPTH (M)	M	X H	EAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0 **	10		8 . 9	26.2	.8424	29	• •	35 • 3	34.6	34.0	· 3736 · 3728	29	• •	1546 9	1543·1 1543·0	1537.6	1 • 6259	29
* ' '	. 6.	_	28 • 6	26 • 1	.9776	29		35 • 3	34.7	34.6	• 3846	29		1545.4	1542.8	1537.6	1 . 9558	29
- 11	4		28 • 1	24 . 9	1.3813	-		35 • 4	34.8	34.7	. 3660	29		1544.9	1541.9	1535+3	2.8748	29
3n •			25.7	19.6	2.7320			35 . 4	35.0	34.3	. 7636	29		1545.0	1537 - 1	1522.2	6.4013	29
75 •			1 . 8	16.1	3,4782	29		35.4	35.1	34 . 7	• 1505	29		1544.0	1527.9	1512.3	8.8140	29
100 •			8 - 1	14.5	2.3574	-		35 • 3	35.2	34.9	•11946	29		1533.0	1518.2	1507 . 6	6.6956	29
125 •			6.0	13.3	1.5528	29		35 • 2	35.1	34.9	• 0797	29		1523.3	1512.7	1504 - 1	4.7398	29
150 •			4 . 6	12.5	1.0055	29		35 • 2	35.1	35.0	.0704	29		1516.3	1508.5	1501 • 7	3 . 27 48	29
200 •			2 . 8	11.7	.7321	29		35 . 2	35.1	35.0	· 0574	29		1509.5	1503.6	1499.7	2.3784	29
25n •			1 . 7	11.0	.4773	29		35 • 1	35.0	34.9	.0409	29		1504.3	1500 . 6	1497.9	1.6992	29
300 •			0.9	10 • 3	. 4146	29		35 - 1	35.0	34.9	.0561	29		1501 - 3	1498.6	1496 . 1	1.5098	29
400 -			9.9	9.3	. 3317	29		35.0	34.9	34 . 8	· n 3 7 8	29		1499.6	1496.3	1494.2	1 . 2763	29
50n •			9.0	8 . 5.	. 2915	29		35.0	34.9	34.8	· 0574	29		1497 . 0	1494.7	1492.8	1 . 0971	29
600 •		2	8 • 3	7 . 8	.3033	28		34.9	34.8	34.8	·0497	28		1497 . 1	1493.6	1491.9	1 - 1 4 4 0	28
700 .		7	7 . 6	7 . 2	. 2753	27		35.0	34.9	34 . 8	. 0580	27		1497 . 1	1492.8	1491.0	1 . 2075	27
800 -		3	7 • 1	5 . 9	.4373	27		35.0	34.9	34 . H	.0641	27		1497.0	1492.3	1487.5	1.7632	27
900 .	. 7	- 8	6.6	5 . 4	. 4508	27		35 . ₩	34.9	34 . 8	.0580	27		1496.9	1492.0	1487 . 3	1 . 8 4 3 9	27
1000 .	. 7	3	6 • 1	5 . 1	. 4246	27		35.0	34.9	34.8	.0580	27	0.0	1496.7	1491 . 7	1487.5	1.7619	27
1100 *		2	5.6	4 . 8	. 2741	26		34.9	34 . A	34 . 8	· 1452	26		1494.0	1491.2	1488.3	1 - 1328	26
1200 .	. 5	5	5 • 1	4 . 8	.1826	19		34 . 9	34.8	34 . A	· 0375	19		1492.7	1491.0	1489.7	.7572	19
1300 •		- 1	4 . 7	4 . 3	.1900	19		34.8	34.8	34 . 8	•0000	19		1492.6	1491 - 0	1489.5	.7608	19
1400 .	. 4	6	4 . 4	3 . 9	.1929	12		34.8	34.8	34 · H	•0000	12		1492.2	1491.3	1489.5	. 7849	12
1500 .		- 3	4.0	3.6	. 1749	12		34.8	34 . A	34 - 11	.0000	12		1492 . 7	1491 . 4	1489 . 7	.7793	12
1750 •		4	3 . 2	2 . 8	.1749	12		34 . 8	34.8	34 . 8	.0000	12		1493.2	1492 - 2	1490.5	. 7596	12
2000 -		8	2.6	2 • 1	. 2044	10		34.8	34.8	34.8	.0000	10		1494.9	1494.0	1491.8	.8537	10
2500 •		-1	2.0	2 • 0	.3516	3 -		34 . 8	34.7	34.7	00316	10		1500 . 3	1500.0	1499.7	. 1897	10
300n •		8	1 . 8	1 • 7	.0516	1.3		34.8	34.7	34.7	• 6316	10		1507.6	1507.4	1507 . 3	• 1135	10
4000		7	1 . 6	1 . 5	.1414	2	• •	34.7	34.7	34.7	.0000	2		1524.4	1524.1	1523.9	.3536	2

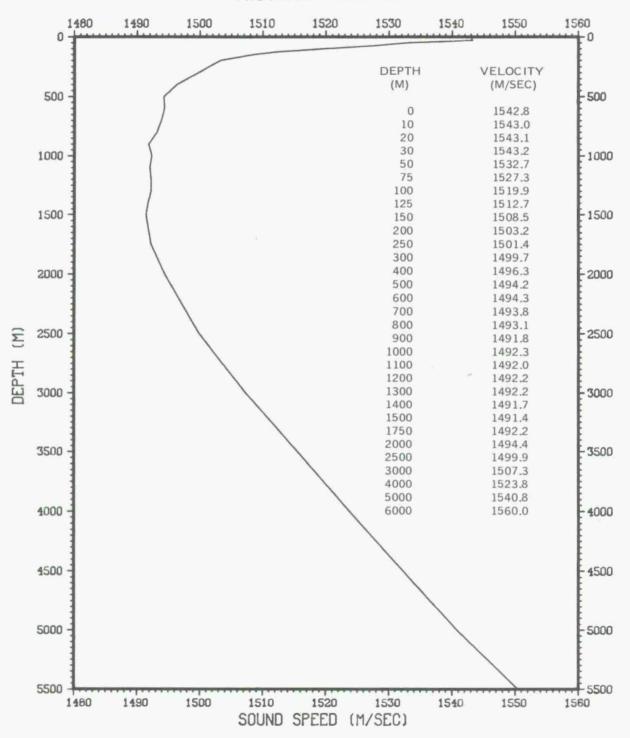
PROVINCE 11 MAR - MAY



# PROVINCE 11 JUN - SEP

		TEMP	ERATUR	E (C1			5/	LINITY	(PPT)				VELOC	ITY (M/S	EC)	
DEPTH (N)	MAX	MEAN	MIN	ST DEV	NUM	hÃΧ	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
n 1 n	28 · 8	28.0	26.5	.8630		• 35 · 4 • 35 · 4		34 • 6	• 2359	17 17		1543 · 7 1543 · 8	1541 • 6	1538.3	1.5759	1 7 1 7
2 n	 28.8	27.6	24.6	1.1926	17 •	. 35.4	35.1	34.6	. 2157	17		1544.0	1541 - 1	1533.8	2.8096	17
3 n	78.8	27 • 1	23.4	1.7252	17 .	• 35 - 3	35.1	34 . 6	. 2058	17		1544.1	1540.3	1531.0	4.0246	17
50	 28 • 5	25.0	18 + 4	3.1448	17.	• 35 • 3	35.1	34 • 7	. 1562	17		1543+4	1535.3	1518.7	7.6958	1.7
75	 27.9	20.9	15 - 3	3.6172	17 •	• 35 • 3	35.1	34.9	• 1320	17		1542.6	1525.5	1509 . 7	9.4301	17
100	 25 . 7	18 • 1	14.0	2.9875	17. •	• 35 • 3	35.1	34 • 9	•1169	17		1538.3	1518.2	1506.0	8.3283	1.7
1 25	 19.0	15.9	13.4	1.6242	17 .			35 - ()	. 6431	17		1521.6	1512.4	1504.3	5.0604	17
15n	 16.1	14.5	12.8	1.0313	17 •			35.00	• n707	1.7		1513.6	1508.5	1502.7	3.3995	1.7
20n	 14.4	12.8	11.5	.7830	17 •			35.6	. 9606	1.7		1509.1	1503.6	1499.1	2.7292	17
250	 13+3	11.8	11+0	.5911	17 •		35.0	35 + 2	· n 4 9 3	17		1506.0	1501.0	1498 . 0	2.0548	17
300	12.0	11 + 2	10.5	.4767	17. •			34 . 9	• 0562	17		1502.6	1499.5	1497 • 2	1.7246	17
400	 10.8	10.0	9 . 4	.3984	17 •		-	34.8	• 6500	17		1500.0	1496.8	1494.5	1.5183	1.7
500	10.1	9 • 1	8 . 5	.4145	17 •		-	34.8	.0514	17		1498.7	1495.1	1492.7	1.5492	17
600	 8 . 9	R + 3	7 • 8	-2867	17 •			34.8	• a 493	17		1496.0	1493.9	1491.9	1.0648	17
700	8 + 1	7 • 7	6.8	.3018	17 .			34.8	• 0507	1.7		1494.8	1493.1	1489.4	1.2530	17
800	7 • 5	7 • 1	5 • 8	.4070	17 .		34.9	34 · H	• 0514	17		1494.0	1492.5	1487 • 1	1.6837	1.7
900	 7 • 3	6 . 6	5 • 8	.3526	17 •	• 34.9	34.8	34 . 8	•0514	17		1494 . A	1492.3	1488.8	1 . 4204	17
1000	 6 • 7	6 • 1	5 • 5	.3002	17 .	. 35.0	34.9	34+8	.0624	17		1494.3	1491.9	1489.6	1 • 1779	1.7
1100	 6+1	5 . 6	5 . 2	.2421	16 .	• 34.9	34.8	34 + A	• 0500	16		1493.3	1491.6	1490.0	.9600	16
1200	 5 . 5	5 . 2	4 . 9	. 2658	10 .			34+8	· 0422	10		1492.5	1491 • 3	1490 . 2	.8048	10
1300	 5 • 6	4 . 7	4 - 4	.2300	10 •	• 34.9	34.8	34 . 6	.0316	10		1492.2	1491 . 1	1489.9	.9370	10
1400	 4 . 7	4 . 3	4 . 0	. 2271	13 .	• 34.8	34.B	34 . 8	•0000	10		1493.0	1491 . 2	1489.6	1.0236	10
1500	 4 . 5	4 . 0	3.6	. 2424	10 .	. 34.8	34.8	34.0	• 0000	10	• •	1493.4	1491-4	1489.7	. 9916	10
175n	 3 . 5	3 + 1	2 . 9	. 2068	9 •	. 34.8	34.8	34 . 8	• 6500	9		1493.4	1492 - 1	1491 • 1	.8016	9
2000	 2 · 8	2 . 7	2.5	-1134	7 *	• 34.8	34.8	34 • 7	.0378	7		1494.7	1494.2	1493.4	. 4645	7
2500	 2.0	2 • 0	1 . 8	.0787	7 •	. 34.8	34.7	34.7	•9378	7		1500.0	1499.7	1499 • 1	.3251	7
3000	 1 • 7	1 • 7	1 . 7	.0000	4 .	• 34.7	34.7	34.7	.0000	4		1507.3	1507.3	1507.3	.0000	4
400n	 1.5	1.5	1 . 5	.0000	1 *	• 34.7	34.7	34 • 7	• 9000	1	• •	1523.6	1523.6	1523.6	•0000	1.

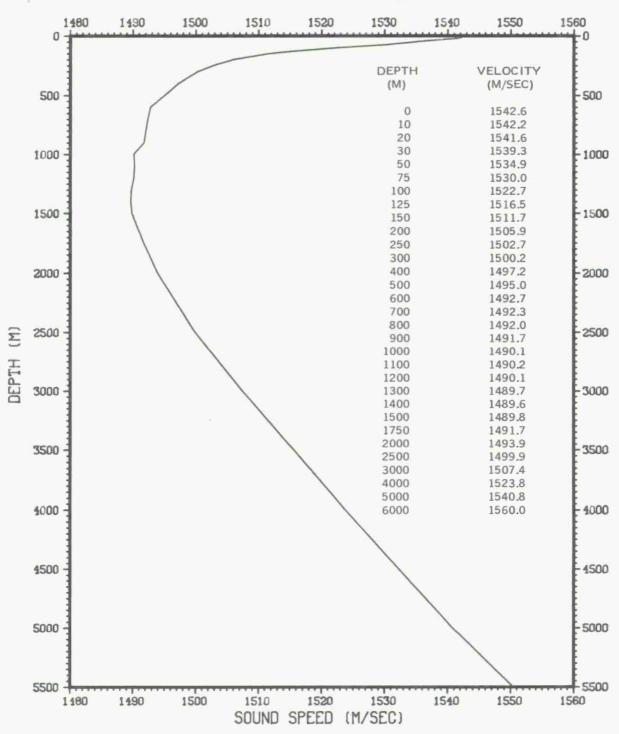
PROVINCE 11 JUN - SEP



# PROVINCE 11 OCT - NOV

D =			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (M/S	ECI	
DEPTH (M)		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0	• •	29.4	28 • 3	26.5	-6199	16	• •	35 • 3	34.8	34 • 1	• 3304	16	• •	154405	1542 • 0	1538.6	1 - 21 94	16
ĵù		28 . 8	28 • 1	26.5	.5718	16	• •	35 • 3	34.8	34 • 4	. 2955	16	• •	1543.0	1541.7	1538.7	1 • 1 4 2 3	16
2ņ	• •	28 . 8	27.9	26.5	.5907	16	• •	35 • 3	34.9	34.5	. 2869	1.6	• •	1543 • 1	1541.6	1538 . 9	1 • 2059	16
3 ņ	• •	28 . 7	27 • 4	26 • 0	.8601	16	• •	35 • 4	35.0	34.6	• 2568	16	• •	1543.1	1540 • 7	1537.6	1 - 8046	16
0.7		28 . 3	25 • 1	19.6	2.3919	16	• •	35 • 3	35.1	34 . 6	.1778	16	• •	1542.8	1536.0	1522.0	5.7566	16
75	• •	26.0	21 • 2	16.1	2.7965	16	• •	35 • 3	35.2	35 • 1	• 0750	16	• •	1538.6	1526.6	1512.3	7 • 45 9 6	16
100		22.5	18 • 4	13.8	2.5405	16	• •	35 • 3	35.2	35.0	.0806	16	• •	1530.6	1519.3	1505 • 1	7 - 3941	16
		19.7	16.4	13 • 1	2.0007	16	• •	35 . 2	35 - 1	34.9	•0816	16	• •	1523.5	1513.9	1503 • 1	6.1366	16
150		17.6	15.0	12.5	1.5207	16	• •	35 • 2	35.1	35.0	.0500	16	• •	1518.0	1509.9	1501.6	4.8389	16
200		14.9	13 • 1	11.6	.8869	16	• •	35 • 1	35.1	34 . 9	• 0619	16	• •	1510.5	1504.7	1499.3	2.9958	16
25ņ		13.0	17.0	11-1	.5702	16	• •	35 • 1	35.0	34.9	· 0443	16	• •	1505 - 1	1501 - 7	1498 . 6	1.9550	16
300		12 · G	11 - 2	10.6	.4135	16		35.0	35.0	34.9	· 0447	16	• •	15n2 · 3	1499.5	1497.3	1 . 4646	16
400		10.7	10.0	9.5	. 2680	16	• •	34.9	34.9	34.9	• 2000	16	• •	1499.5	1496.9	1494.9	1.0227	16
500		9 . 7	9 • 1	8 . 7	.2373	16		34.9	34.9	34 . 8	• 0512	16		1497.2	1495 - 1	1493.6	.8671	16
6Cn		8 . 6	8 . 3	8 . 0	.1708	16	• •	34.9	34.8	34.8	· 0447	16	• •	1494.8	1493.7	1492 . 7	.6152	16
70n	• •	7 . 9	7 . 6	7 • 3	.1746	16	• •	34.9	34.8	34.8	.0479	16		1493.9	1492.8	1491 . 5	.6940	16
600		7 . 3	7.0	6.6	.2120	15		34.9	34.8	34 . €	· 0458	15		1493-1	1492.0	1490 . 5	.8137	15
900	• •	6 . 8	6 • 4	5 . 8	. 2563	15		34.9	34.8	34.8	· 6352	15		1492.7	1491 - 3	1488.8	1.0452	15
1000	0.0	6 . 2	5 . 8	5 . 4	. 2293	15		34.9	34.8	34 . 6	· n 352	15		1492 - 4	1490.7	1488.9	.9187	15
1100		5 . 7	5 . 4	5 . 1	.1831	15		34.9	34.8	34 . 8	· 1414	15		1491.8	1490.5	1489 . 4	.7047	15
1200		5 . 3	5 . 0	4 . 7	.1642	15		34.9	34.8	34.8	.0414	15		1492.0	1490.5	1489.5	.6902	15
130n		5 . 6	4 . 6	4 . 3	. 1981	15		34.9	34.8	34.7	• 2458	15		1492.3	1490.5	1489.5	.8314	15
1400		4 . 6	4 . 2	3 . 9	.2167	15		34.9	34 . 8	34 . 7	·0378	15		1492.5	1490.5	1489 . 4	.9478	15
150n	0.0	4 . 3	3 . 8	3 . 5	.2396	15		34.8	34 . 8	34.7	·0258	15		1492.6	1490 . 7	1489.3	.9907	15
175n		3 . 3	3 • 1	2 . 9	.1521	15		34.8	34.8	34.7	·0258	1.5		1492.9	1491 . 7	1490 . 8	. 6455	15
		2 . 7	2.6	2.5	.0724	15		34.8	34.8	34.7	· 0458	15		1494.6	1493.7	1493.3	.3980	15
2500		2 - 1	2 • 0	1.9	. 6475	1 4		34.7	34.7	34.7	.0000	14		1500.3	1499.8	1499.5	.2311	14
3000		1 . 8	1 . 7	1 . 7	. 5469	1.4		34.7	34.7	34.7	• 0000	14		1507.6	1507.3	1507 • 1	. 1657	14
4000		1.5	1.5	1.5	-0000		• •	34.7	34.7	34.7	• 0000			1523.8	1523.7	1523.6	.1414	2

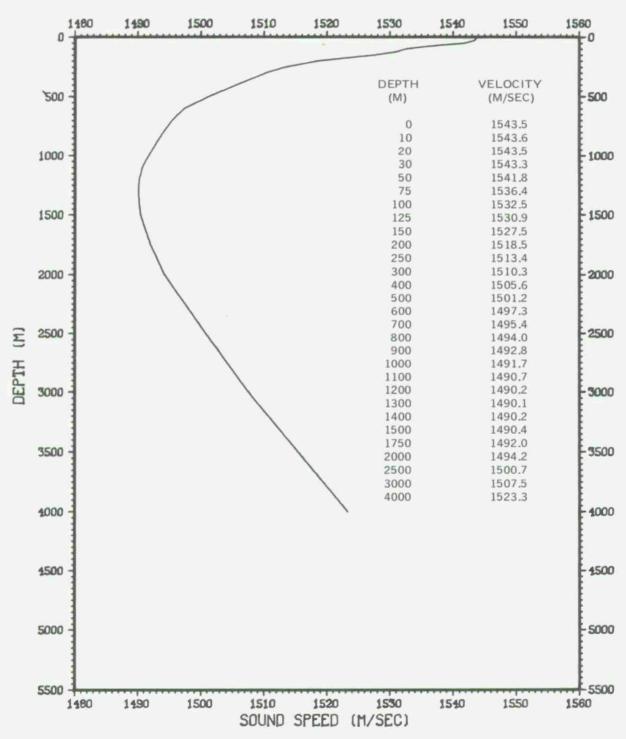
#### PROVINCE 11 OCT - NOV



## PROVINCE 12 DEC - FEB

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (M/S	ECI	
(M)		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		HAX	HEAN	HIN	ST DEV	NUM
0	• •	29.7	28.7	27.5	.5721	26	• •	35.2	34.9	34.3	.2308	26	• •	1545 . 1	1543.1	1540 - 7	1 . 25 25	26
10		29.1	28.5	27.5	. 3949	26		35.2	34.9	34.3	. 1925	26	• •	1544.3	1542.8	1541.0	.8096	26
20		28.8	28.4	27.5	.3486	26		35.2	35.0	34.7	.1120	26		1543.7	1542.7	1540 . 7	.7531	26
30		28.6	28 . 1	27 . 2	. 3822	26		35.2	35.0	34.7	.1134	26		1543.4	1542 . 4	1540 . 2	.8117	26
50	• •	28 . 2	27 . 4	26 . 1	.7874	26		35.2	35.1	34.8	.0838	26		1543+1	1541.2	1538.2	1 . 7549	26
75		27.7	25 . 9	23.8	.9279	26		35.2	35.1	34.9	.0765	26		1542 . 2	1538.2	1533.4	2 - 1096	26
100		27.0	24.4	22.5	.9596	26		35 . 2	35.1	34.9	.0724	26		1541 . 0	1535.0	1530 . 6	2 . 2470	26
125	• •	25.8	22.8	21 • 3	1.1818	26		35.2	35.1	35.0	.0516	26		1538.6	1531.6	1527 . 8	2.8815	26
150		24.2	21 - 1	19.4	1.1721	26		35.3	35 . 1	35.0	.0761	26	0.01	1535 - 3	1527.6	1523 . 1	3.0275	26
200	• •	21.5	18.0	15.9	1.2023	26		35.3	35.2	35 - 1	.0283	26	• •	1529 . 7	1520-1	1513.7	3 . 3719	26
250		19.1	15.9	14 - 1	.9137	25		35.3	35.2	35 . 1	.0440	25		1523.9	1514.6	1508.8	2.7507	25
300		15 - 1	14.3	12.7	.4917	25		35.3	35.2	35 • 1	.0400	25		1512 . 9	1510 - 2	1504.8	1 . 6405	25
400		13.2	12.1	10.8	.5243	25		35.2	35 - 1	35.0	· 0577	25		1508 - 2	1504.6	1499.9	1.8178	25
		11.7	10.5	9 . 1	.5573	25		35.0	34.9	34.8	.0597	25		1504 . 6	1500.3	1495 . 1	2.0476	25
600		10.7	9 . 2	7 . 9	. 6055	24		34.9	34.8	34.7	.0448	24		1502 . 6	1497.2	1492 - 1	2.2862	24
700		9.6	8 • 2	7.5	.5076	24	• •	34.8	34.8	34.7	· n504	24		1500 - 1	1495.0	1492.2	1 . 9412	24
800		8 . 5	7 . 3	6 . 9	.3740	21		34.8	34.7	34.7	.0483	21		1497 . 8	1493.2	1491.4	1 . 4774	21
900		7 . 5	6 . 6	6 . 2	.2910	18		34.8	34.8	34.7	.0461	18		1495 . 6	1492 - 1	1490 . 3	1 - 1563	18
1000		6.2	5 . 9	5 . 6	.1761	13		34.8	34.8	34.7	.0277	13		1492 . 2	1491 - 1	1489.5	.8242	13
1100	• •	5 . 7	5 . 4	5 . 2	.1981	13		34.8	34.8	34.7	.0277	13		1491.6	1490 . 7	1489.8	.7029	13
1200		5 - 3	5.0	4.7	.1613	13		34.8	34.8	34.8	.0000	13		1491 . 6	1490 . 4	1489.4	. 6894	13
1300		4.9	4.5	4 . 3	.1676	12		34.8	34.8	34.7	.0289	12		1491 . 7	1490.3	1489.1	.7633	12
1400		4 . 4	4 + 1	3 . 8	.2066	10	0.0	34.8	34.8	34 . 7	· p316	10		1491 . 6	1490 . 4	1489.1	. 8364	10
1500		4.0	3 . 8	3 . 6	.1476	10		34.8	34.8	34.7	.0422	10		1491.5	1490 . 6	1489.6	.6467	10
1750		3.2	3 • 2	3.0	.0726	9		34.8	34.8	34.7	.0441	9		1492.4	1492.0	1491 . 2	.3779	9
2000		2 . 8	2.7	2.6	.0756	7		34.8	34.7	34.7	.0535	7		1494.8	1494.2	1493.8	.3359	7

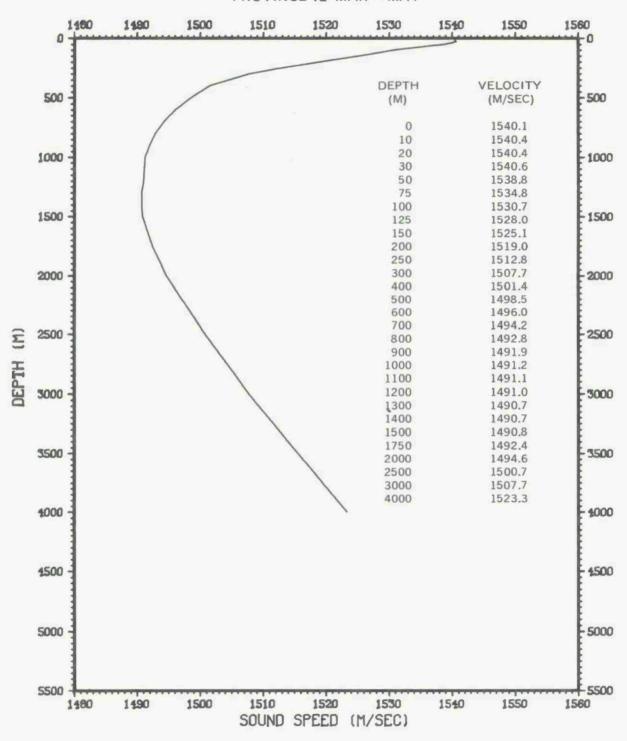
#### PROVINCE 12 DEC - FEB



## PROVINCE 12 MAR - MAY

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (M/S	EC)	
DEPTH (M)		HAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	HIN	ST DEV	NUM		MAX	HEAN	MIN	ST DEV	NUM
		0	20.0	25.5	.8748	96		35 • 1	34.7	33.2	. 2767	96	• •	1546.7	1541.3	1536.0	1 . 8563	96
		30.8	28.0	25.6	.7739	96		35.1	34.7	33.9	.2044	96		1545.2	1541.2	1536.3	1.6557	96
20		29.8	27.8	25.6	.7363	96		35 - 1	34.7	34.3	.1634	96		1545.3	1541.2	1536.5	1.6011	96
30		29.7	27.6	25.5	.7384	96		35.2	34.8	34.3	. 1422	96		1545.4	1541+1	1536.3	1 . 6285	96
50		28.6	26.6	23.4	1.1140	96		35.2	34.9	34.6	.1378	96		1543 . 4	1539.2	1531.9	2.4661	96
75		28 - 1	24.7	20.9	1.4862	96		35.3	35.0	34.7	.1242	96		1543.0	1535.4	1526.0	3.4675	96
			22.9	19.1	1.3918	96		35.3	35.1	34.8	.1097	96		1539.5	1531.3	1521 . 6	3 . 4215	96
100		26.4	_	16.9	1.2854	96		35.4	35.2	34.9	.0934	96		1535 . 0	1527 . 2	1515.8	3 . 3546	96
125	• •	24.2	21 • 1	15.4	1.2333	96		35.5	35.2	35.0	.0808	96		1531.6	1523.2	1511.5	3.4068	96
150		22.6		14.1	1.0705	96		35.5	35.3	35.1	.0694	96		1524.9	1516.7	1508 . 1	3.2108	96
200		19.6	16.9	13.4	.7706	96		35.5	35.2	35 • 1	.0634	96		1518.4	1511.6	1506.6	2.4716	96
250		17.1	14.9		.5458	93		35.4	35.2	35 • 1	.0494	93		1512.3	1507 . 7	1503.7	1.8635	93
300		14.9	13.5	12.3	.3798	93		35 • 1	35.0	34.9	.0496	93		1505 - 1	1502 . 7	1498.6	1 . 3525	93
400		12.3	11.6	9.0	.3621	87		35.0	34.9	34.8	.0437	87		1502.5	1499.1	1494.8	1 . 3305	87
500		11+1	10.2		.3530	83		34.9	34.8	34.7	·0402	83		1500 - 4	1496.2	1492.6	1 . 3 4 3 1	83
600		10-1	9.0	8.0		81		34.8	34.7	34.7	·D448	81		1496.9	1494.0	1491 - 1	1 - 1332	81
700		8.8	8 • 0	7 . 2	.3026	80		34.9	34.7	34.7	.0470	80		1494.4	1492.4	1489.1	1 . 0744	0.0
800		7 . 7	7 • 1	6.3	. 2805	79		34.9	34.8	34.6	• 0535	79		1494.0	1491 . 6	1488.3	1.0813	79
900		7 - 1	6.5	5 • 7	.2645	74		34.9	34.8	34.7	· D382	74		1493.5	1491 . 2	1488.2	1 - 1034	74
1000		6.5	6.0	5 • 2	. 2695	70		34.9	34.8	34.7	.0289	70		1493.4	1491 . 0	1488.0	1.0916	70
1100		6.1	5.5		. 2891	48		34.8	34.8	34.7	.0279	48		1493.6	1490 . 9	1487 . 9	1 . 1816	48
1200		5 . 7	5 • 1	4 - 3	_	44		34.9	34.8	34.7	.0409	44		1493.6	1490.8	1488.0	1 . 1845	44
1300		5 • 3	4 • 7	4 . 0	. 2831	44		34.9	34.8	34.7	.0476	4.4		1493.3	1490.8	1488.3	1 - 1401	44
1400		4 . 9	4 - 3	3 • 7	. 2739			34.8	34.8	34.7	.0501	40		1493.0	1491 .0	1488.8	1.0737	40
1500		4 . 4	3 . 9	3 • 4	. 2662	40		34.8	34.8	34.7	.0493	34		1494.5	1492.3	1490 . 8	.8032	34
1750		3.7	3 • 2	2 . 9	.1850	34		34.8	34.8	34.7	.0445	31		1495.9	1494.5	1493.5	.5366	31
2000		3 • 1	2 . 7	2.5	.1338	31	• •	34.8	34.8	34.7	· 0479	16		1501 • 7	1500.8	1500 - 3	. 4465	16
2500		2 • 4	2 . 2	2 • 1	.1025	16		34.8	34.7	34.7	· 0447	5		1507 • 7	1507 . 4	1507.2	. 2074	5
2000		1 . 0	1 . 7	1 . 7	0548	- 5		2400	370/	3407	00117	3		120,00				

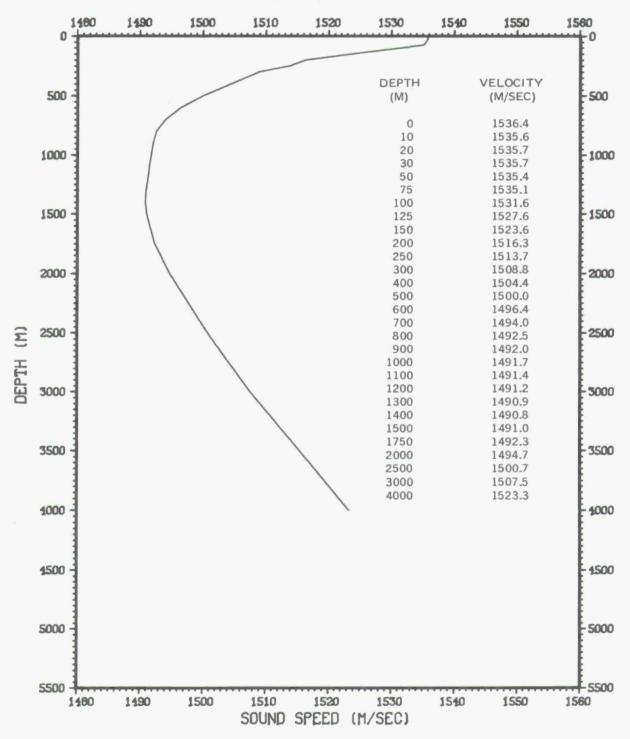
#### PROVINCE 12 MAR - MAY



## PROVINCE 12 JUN - SEP

		TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (M/S	ECI	
DEPTH (M)	MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	HIN	ST DEV	NUM		MAX	MEAN	м1 N	ST DEV	NUH
0	 28.5	25.3	23.3	.7974	150	• •	35.3	35.0	34.7	.1348	150	••	1542 . 4	1535.6	1531 • 1	1 . 8127	150
10	28.0	25.2	23.3	.7277	150		35.3	35.0	34.7	1321	150		1541.6	1535.5	1531.3	1.6580	150
20	28.0	25.2	23.3	.7314	150		35.3	35.0	34.7	. 1290	150	• •	1541.8	1535.6	1531 • 4	1.6665	150
30	27.8	25 - 1	22.2	.8067	150		35.3	35.0	34.7	.1326	150		1541 . 7	1535.6	1528.5	1.8698	150
50	27.2	24.8	20 • 1	.9793	150		35.3	35.0	34.7	. 1369	150		1540 . 7	1535.2	1523.6	2.3196	150
75	26.2	24.3	18.4	1.3383	150		35.4	35.0	34.7	. 1431	150		1538.8	1534.3	1519.2	3.3226	150
100	25.5	23.3	17.0	1.7254	150		35.4	35.0	34 . 8	.1319	150		1537 . 7	1532.4	1515.5	4.3955	150
125	25 • 6	21.8	16.3	2.0199			35.4	35.1	34.8	. 1286	150		1536 . 9	1529.0	1513.9	5 . 2415	150
		20.3	15.6	2 - 1462			35.5	35 . 2	34.8	.1278	150		1535.8	1525.6	1512.1	5.7143	150
150	24.5	17.4	14.1	1.7958			35.5	35.3	34.8	.0931	150		1533 - 2	1518.3	1508.3	5 • 1532	150
200	22.8	15.4	13.2	1.2399	1 -0		35.5	35.2	34.8	.0781	146		1525 . 4	1512.9	1505.8	3.8471	146
250	19.5	-	12.2	.9186		• •	35.5	35.2	34.8	· n803	142		1518.5	1508.9	1503.2	3.0223	142
300	16.9	13.9		.5800			35.2	35.1	34.8	.0716	139		1508 - 1	1503.4	1498 . 2	2.0596	139
400	13.2	11.8	9.1	.4387			35.0	34.9	34.7	.0624	136		1504-1	1499.5	1495.2	1.6203	136
500	11.5	10.3		.3981			35.0	34.8	34.7	.0474	130		1500 - 9	1496.4	1492.8	1.5114	130
600	10.2	9 • 0	8 . 1	.3478			35.0	34.7	34.6	• 0643	124		1497.7	1494 - 1	1491 . 0	1.3560	124
700	8 . 9	8.0	7 . 2	.2869		•	35.0	34.7	34.6	.0619	122		1496.3	1492.8	1489.9	1 - 1403	122
800	8 • 1	7 . 2	6.5		4		34.9	34.8	34.6	.0560	117		1495.2	1492 - 1	1489.7	.9787	117
900	7 . 4	6.6	6.0	. 2435	-		34.9	34.8	34.7	.0397	103		1494.4	1491.6	1488.1	1.0103	103
1000	6 . 8	6 • 1	5 . 2	.2504			34.9	34.8	34.7	.0366	101		1493.9	1491.2	1487 . 3	1 - 1057	101
1100	6.2	5.6	4 . 6	. 2639		• •	34.9	34.8	34.7	.0319	99		1493.8	1491 . 0	1488.4	1.0987	99
1200	5.8	5 • 1	4.5	. 2587		• •	34.9	34.8	34.7	·0327	91		1493.5	1490 . 8	1488.6	1.0019	91
1300	5 • 3	4.6	4 . 1	. 2417			34.8	34.8	34.7	.0357	88		1493.3	1490.8	1488.8	. 8972	88
1400	4 . 9	4 . 2	3 • 8	.2137	00		34.8	34.8	34.7	.0423	83		1493.4	1491.0	1489.6	.7718	83
1500	4 . 5	3 . 9	3 • 6	. 1792		• •	34.8	34.8	34.7	.0483	75		1494.0	1492 . 1	1490.9	.6214	75
1750	3.6	3 . 2	2 . 9	. 1431		• •	34.8	_	34.7	.0471	56		1495 . 7	1494.4	1493.6	.4073	56
2000	3 • 0	2 . 7	2.5	.0972		• •	-	34.8	34.7	0507			1501.5	1500 . 7	1500 . 2	.3160	23
2500	 2 . 4	2 . 2	2 • 1	.0668	2.0	• •	34.8	34.7		.0000			1507.6	1507 - 4	1507.2	.2082	3
3000	 1.8	1 . 7	1 . 7	.0577	3		34.7	34.7	34.7	. 0000	3		. 30, 40	0	3		

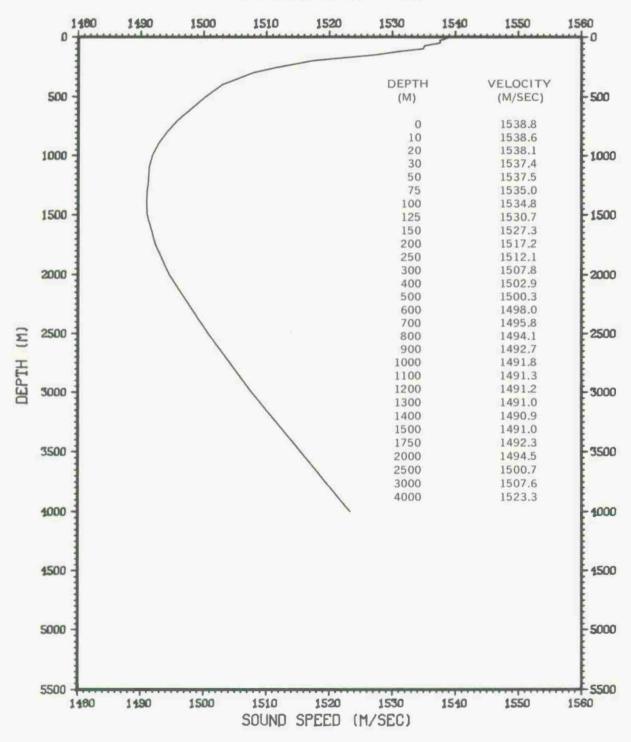
PROVINCE 12 JUN - SEP



## PROVINCE 12 OCT - NOV

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	1TY (M/5	Ec)	
DEPTH (M)		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	HIN	ST DEV	NUM		MAX	MEAN	H1N	ST DEV	NUM
_	• •	29.8	27 • 0	24.4	1.3207	95		35.4	35.2	34.8	• 1124		• •	1545 · A	1539 . 7	1533.7	3 - 0064	95
10	• •	28.8	26 . 8	24.4	1.2030	95	• •	35.4	35.2	34.8	.1086	95	• •	1543.5	1539.4	1533.9	2 • 7457	95
20		78.6	26.7	24 • 2	1.1592	95	• •	35.4	35.2	34.9	.1062	95	• •	1543.5	1539.2	1533 • 4	2.6936	95
30	• •	28.1	26.3	23 • 7	1.0348	95		35.4	35.2	34.8	.1030	100	• •	1542.7	1538.5	1532.6	2 • 4172	95
50		27.6	25 • 5	21 • 7	1.0201	95		35.4	35.1	34.8	.0994		• •	1542.0	1536.9	1527.6	2 • 4245	95
75	• •	26.3	24.7	19.9	1 - 1490	95		35.4	35.1	34.8	.0974		• •	1539 • 4	1535.4	1523.3	2.7977	95
100		25.3	23 . 8	18.5	1.3946	95		35.4	35.1	34.8	.0942	_	• •	1537 • 3	1533.6	1520.0	3.4887	95
125		25 • 0	22.6	16.8	1.7162	95		35.4	35.1	34.9	.0921	95	• •	1537.0	1531.2	1515.5	4 - 4076	95
150	• •	24+5	21 • 3	15.6	1 . 9202	95		35.5	35 . 2	34.9	.1020		• •	1536.3	1528.1	1511.9	5.0736	95
200	• •	22.6	18.2	14.0	1.7650	95	• •	35.5	35.2	34.2	.1308	95	• •	1532.3	1520.5	1507.7	5.0021	95
250		19.3	15.8	13.0	1.1249	95		35.4	35.3	35.1	.0580	95	• •	1524.6	1514.3	1505.0	3 . 4854	95
300		16.2	14 • 1	12.3	. 8194	94	• •	35.4	35.2	35 . 1	.0574	94	• •	1516.3	1509.8	1503.6	2.7143	94
400		13.2	12.0	10.8	.5272	92	• •	35.2	35.1	34.9	.0579	92		1508 . 2	1504 - 2	1499.9	1.8826	92
500		11.5	10.5	9.5	. 4729	90	• •	35.0	34.9	34.8	.0598	90	• •	1503.8	1500 - 4	1496.3	1 -7556	90
600		10.2	9.3	8 . 4	.4178	85		35.0	34.8	34.7	.0544	85		1500 . 7	1497.5	1493.8	1.5909	85
700		9.0	8 . 2	7 . 3	. 3779	81		34.9	34.8	34.7	.0550	81	• •	1498.0	1495.0	1491.3	1 . 4465	81
800		7 . 9	7 • 4	6 . 5	. 2916	75		34.9	34.7	34.7	.0528	75		1495.5	1493.3	1489.8	1 . 1494	75
900		7 • 1	6.7	6.0	. 2692	70		34.8	34.8	34.7	• G 478	70		1493.8	1492.3	1489.6	.8089	70
1000		6.5	6 • 1	5 . 5	. 2043	59		34.8	34.8	34.7	· @305	59		1493.4	1491.8	1489.3	.8109	59
1100		6 . 4	5 - 7	5 • 2	. 2374	53		34.9	34.8	34.8	· U192	53		1494.7	1491.6	1489.5	.9723	53
1200		5 . 5	5 • 2	4 . 9	. 1572	22		34.9	34.8	34.8	.0213	22	• •	1492.6	1491.5	1490.0	.6751	22
1300		5 . 0	4 . 7	4 + 5	.1649	22		34.9	34.8	34 . 8	.0213	22		1492.3	1491.2	1490 • 1	.6796	22
1400		4 . 5	4 + 3	3 . 9	.1638	22		34.9	34.8	34.8	.0213	22		1492.1	1490.9	1489.2	•7191	22
1500		4 - 1	3 . 9	3.6	.1295	18		34.8	34.8	34.7	.0323	18	• •	1491 . 9	1491.0	1489.8	.5193	18
1750		3 . 3	3 . 2	3 • 0	.1029	17		34.8	34.8	34.7	.0332	17	• •	1492.8	1492.3	1491.5	.4182	17
2000		2 . 9	2 . 7	2 • 6	.0957	1.6		34.8	34.8	34.7	.0479	16	• •	1495 - 4	1494.5	1493.8	.4115	16
2500		2 . 2	2 . 2	2 • 1	.0422	10		34.8	34.8	34.7	.0422	10	• •	1500 • 9	1500.7	1500.3	.1932	10
3000		1 . 8	1 . 8	1 • 7	.0447	5	• •	34.8	34.8	34.7	.0548	5	• •	1507 • 7	1507.6	1507.4	.1304	5

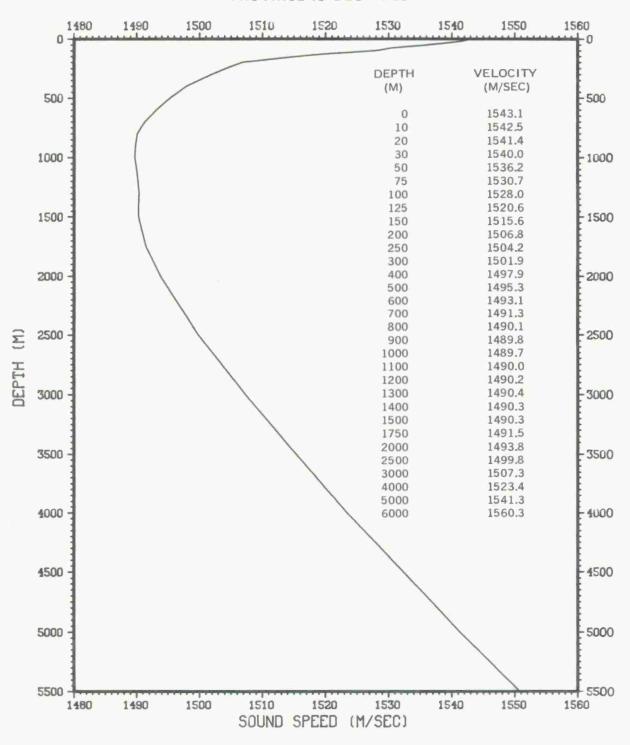
## PROVINCE 12 OCT - NOV



### PROVINCE 13 DEC - FEB

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (M/S	ECI	
DEPTH																		
(M)		MAX	MEAN	MIN	ST DEV	NUM		HAX	MEAN	HIN	ST DEV	NUM		HAX	MEAN	HIN	ST DEV	NUM
		29.2	28 • 1	26.4	.7833	29		35.0	34.7	33.9	.2713	29	••	1544.2	1541+5	1537.9	1 • 6 9 8 2	29
10		29.1	28.0	26.4	.7913	29		35.0	34.7	33.9	. 2685	29		1544.0	1541.5	1538.1	1.7045	29
		29.0	27.8	25.6	.9678	29		35.0	34.7	33.9	.2704			1544.0	1541 - 1	1536.6	2.0756	29
30		28.8	26.9	23.3	1.4288	29		35 • 1	34.8	34.0	.2531			1543.7	1539.5	1531.2	3.1760	29
50		28.5	24.5	18.8	2.5242	29	• •	35.3	35.0	34.5	.2037	29		1543.2	1534.3	1519.7	6.0336	29
75		28.3	21.9	16.8	2.8344	29		35.3	35.1	34.5	.1864	29		1543.3	1528.2	1514.4	7 . 1026	29
100		27.8	20.0	15.7	2.7436	29		35.4	35.1	34.5	. 1947	29		1542.5	1523.5	1511.5	7 . 1905	29
125		24.8	18.4	14.9	2.5340	29		35.5	35.1	34.7	.1725	29		1536 - 1	1519.5	1509.1	6.9972	29
150		22.6	16.9	13.4	2.3952	29		35.4	35.1	34.9	.1382	29		1531.4	1515.5	1504.9	6.9907	29
200		20.8	14.7	12.4	1.8188	29		35.5	35.1	34.8	.1679	29		1527.8	1509.8	1502-1	5.6777	29
250		19.1	13.3	11.3	1.5663	29		35.5	35.1	34.8	.1663	29		1524.2	1505.9	1499.0	5 - 12 6 1	29
300		14.8	11.9	10.3	.8779	28	• •	35.5	35.0	34.8	•1307	28		1512.1	1502.2	1496.1	3.1160	28
400		11+4	10.2	9.2	+6137	28		35 . 1	34.9	34.8	.0766	28		1502 - 1	1497.7	1493.7	2.2905	28
500		9.8	9.0	8.0	.4818	28		34.9	34.8	34.7	.0716	28		1497.7	1494.7	1490 . 6	1.9009	28
600		8 . 9	8 . 1	6 . 8	.5368	28		34.8	34.7	34.6	.0693	28		1496.0	1492.7	1487.7	2.1298	28
700		8.0	7 . 3	6 . 4	. 4740	28		34.8	34.7	34.7	.0504	28		1494.1	1491.5	1487.7	1.9001	28
800		7 . 3	6.7	5 . 7	. 4249	28		34.8	34.7	34.7	.0488	28		1493.2	1490.6	1486.6	1.7315	28
900		6 . 7	6 - 1	5 . 2	.3553	28		34.8	34.7	34.7	.0488	28		1492 . 3	1490 . 1	1486.5	1.4179	28
1000		6.0	5.6	4.9	. 2902	25		34 . 8	34.7	34.7	.0490	25		1491.4	1489.8	1486.6	1.2302	25
1100		5.5	5 . 2	4 . 6	. 2406	23		34.8	34.7	34.7	.0487	23		1490.9	1489.7	1487.1	.9977	23
1200		5.0	4.8	4.3	.1866	23		34.8	34.7	34.7	.0470	23		1490 . 6	1489.6	1487.6	.7934	23
1300		4 . 7	4 . 4	4.0	.1723	23		34.8	34.7	34.7	.0470	23		1490.7	1489.6	1488.0	.6886	23
1400		4.3	4 . 0	3.7	.1703	21		34.8	34.7	34.7	.0436	21		1490.9	1489.7	1488.3	.7025	2.1
1500		4.0	3.7	3 - 4	.1789	21		34.8	34.7	34.7	.0436	21		1491.2	1490 . 1	1488.8	.6983	21
1750		3.3	3.0	2 . 7	.1605	20		34.8	34.7	34.7	.0510	20		1492.6	1491.6	1490.1	.6862	20
2000		2 . 8	2.6	2 . 3	.1326	14		34.8	34.7	34.7	.0497	14		1494.7	1493.8	1492.6	.5711	1.4
2500		2 . 3	2.0	1 . 9	. 1250	1.1		34.8	34.7	34.7	.0505	1.1		1501.0	1499.9	1499.3	. 4976	1.1
3000		1 . 9	1 - 7	1.5	.1464	7		34.8	34.7	34.7	.0378	7		1508.0	1507.2	1506 . 1	.6701	7
4000	• •	1 + 4	1 • 4	1 - 3	.0577	3	• •	34.8	34.7	34.7	.0577	3		1523.3	1523.2	1523.1	1155	3

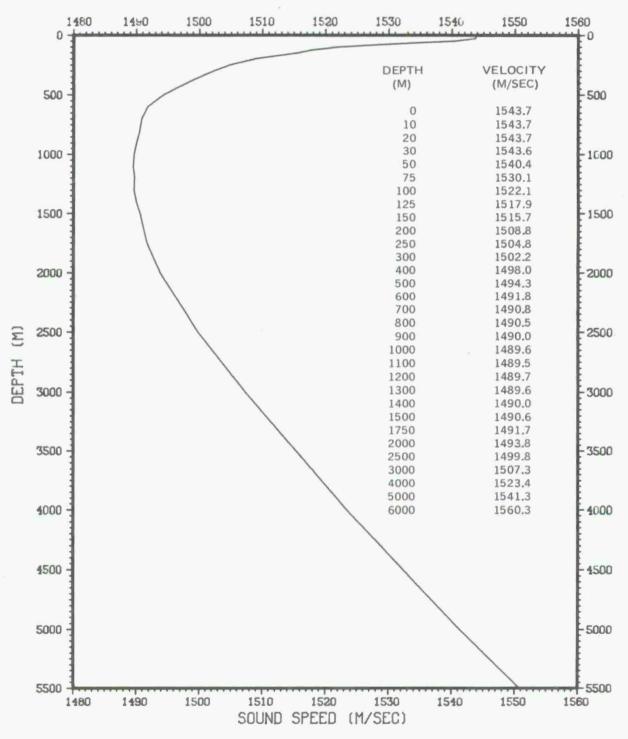
#### PROVINCE 13 DEC - FEB



## PROVINCE 13 MAR - MAY

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (M/S	Ec)	
DEPTH																		
(M)		MAX	MEAN	MIN	ST DEV	NUM		HAX	MEAN	HIN	ST DEV	NUM		MAX	MEAN	M1N	ST DEV	NUM
0		29.8	28.5	25 • 4	1.1606	57		35.0	34.6	34.1	.2237	57	**	1544.8	1542 • 1	1535.2	2.4451	57
10		29.5	28.4	25.4	1.1166	57		35.0	34.6	34.2	. 2071	57		1544.7	1542 - 1	1535.4	2.3770	57
20		29.4	28.2	24.1	1.2489	57		35.0	34.6	34.2	.2088	57		1544.6	1541.9	1533.0	2.6815	57
30		29.3	27.8	20.9	1.6952	57		35 . 1	34.6	34.2	.2185	57		1544.5	1541.2	1525.2	3.7899	57
50		29.0	25.9	18.5	2.6347	57		35.2	34.8	34.4	.1950	57		1544.1	1537.2	1518.9	6.1626	57
75		27.4	22.9	15.6	2.8311	57		35 . 3	35.0	34.4	.1963	57		1541.4	1530.6	1510.5	7.1688	57
100		25.2	20 . 2	14.7	2.4838	57	0.0	35.3	35.1	34.8	.1455	57		1537.0	1524 - 1	1508.0	6.7722	57
125		23.5	18.1	13.6	2.1966	57	0.0	35.4	35.1	34.8	. 1508	57		1533.3	1518.8	1505.0	6.3570	57
150		22.7	16.5	12.8	2.0561	57		35.5	35 . 1	34.8	.1680	57		1531.6	1514.4	1502.7	6.2218	57
200		19.3	14.2	11.8	1.5670	57		35 . 4	35.1	34.7	.1323	5.7		1523.5	1508.0	1500.0	5.0659	57
250		16.0	12.7	11+2	. 9967	57	0.0	35 . 2	35.0	34.8	.0877	57		1514.7	1503.9	1498.7	3.3849	57
300		13.5	11.7	10 . 5	.7362	56		35 • 1	35.0	34.8	.0745	56		1507.4	1501.3	1496.9	2.6051	56
400		11.6	10.2	9.3	.5625	56		35 . 1	34.9	34.7	.0749	56		1502.6	1497.4	1494.3	2.0886	56
500		10.5	9.0	8 . 2	. 4721	55		34.9	34.8	34.7	.0501	55		1500 - 1	1494.5	1491.5	1.7610	55
600		9.5	8 . 0	7 . 2	.4113	55		34.8	34.7	34.7	.0505			1498 - 1	1492.5	1489.4	1.5643	55
700		8.5	7 + 3	6.6	. 3655	5.4		34.8	34.7	34.7	.0503	54		1496 . 1	1491.3	1488.7	1.4503	54
800		7.5	6.6	5 . 7	.3356	54		34.8	34.7	34.7	.0499	54		1493.7	1490.5	1486.7	1.3781	54
900		6.9	6 . 1	5 . 5	. 3009	53		34.8	34.7	34.6	.0541	53		1493.1	1490.0	1487.7	1.2155	53
1000		6 . 4	5 . 6	5 . 1	.2791	52		34.8	34.7	34.6	.0534	52		1493.0	1489.7	1487.5	1.1696	52
1100		5 . 9	5 . 2	4 . 7	. 2590	52		34.8	34.7	34.6	.0530	52		1492.4	1489.6	1487.7	1.0637	52
1200		5 . 2	4 . 8	4 . 3	.2381	4.1		34.8	34.7	34.7	.0505	4.1		1491.6	1489.7	1487.8	1.0134	4.1
1300		4 . 9	4 . 4	3 . 9	.2301	43	0.0	34.8	34 . 8	34.7	.0505	41		1491.7	1489.8	1487.5	.9667	41
1400		4 . 5	4 . 1	3.5	. 2089	35		34.8	34.7	34.7	.0490	35		1492.0	1490.0	1487.4	.9286	35
1500		4 . 2	3.7	3.1	.2108	34		34.8	34.7	34.7	.0462	34		1492.2	1490.3	1487.7	.9096	34
1750		3 . 4	3.0	2.7	.1722	33		34.8	34.7	34.7	.0496	33		1493.0	1491.5	1490 . 2	.6797	33
2000		2 . 8	2.5	2.3	.1297	30		34.8	34.7	34.7	.0430	30		1494.8	1493.5	1492.6	.5074	30
2500		2.2	2 • 0	1 . 8	.0919	26	• •	34.8	34.7	34.7	.0196	26		1500.5	1499.7	1499.0	. 3809	26
3000	• •	1.8	1 . 7	1 . 6	.0737	19		34.8	34.7	34.7	.0229	19		1507.7	1507.1	1506.6	. 3372	19
4000		1 . 6	1 + 4	1 . 2	.2000	3		34.7	34.7	34.7	.0000			1524.2	1523.3	1522.5	.8505	3
5000		1 . 7	1 . 7	1 + 7	.0000	1		34.7	34.7	34.7	.0000	_		1542.4	1542.4	1542.4	.0000	- 1

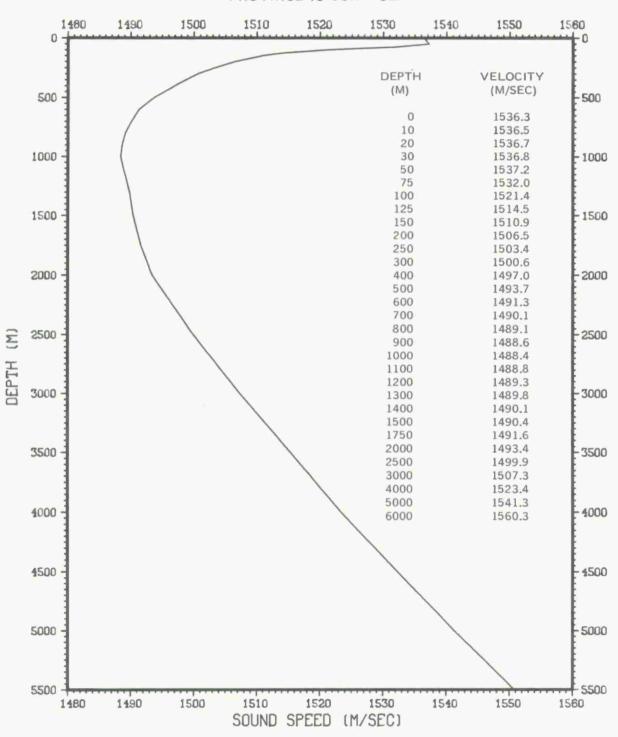
#### PROVINCE 13 MAR - MAY



### PROVINCE 13 JUN - SEP

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY THIS	ECI	
DEPTH																		
(H)		MAX	MEAN	MIN	ST DEV	NUM		MAX	HEAN	WIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
0		28.2	25.7	23.9	.9403	51	• •	35.3	34.5	25.1	1.3880	51	• •	1541.7	1536.0	1521.2	2.9041	51
10		28.1	25.7	23.9	. 9610	51		35.2	34.6	30 . 1	.7241	51		1541.8	1536.2	1526.9	2.4354	51
20		28.0	25.6	23.3	1.0172	5.1		35.2	34.7	33.9	.3435	51		1542.0	1536.3	1531.1	2.2912	51
30		28.0	25.5	22+2	1.0804	51		35.2	34.7	34.2	. 3264	51		1542.2	1536.0	1528.6	2.4136	51
50		27.8	24.6	18.4	1.8832	51		35 . 2	34.8	34.3	. 2901	51		1542.1	1534.3	1518.7	4.5544	51
75		25.7	21.5	15.3	2.4614	51		35 . 4	35.0	34.5	.2176	51		1537.4	1527.2	1509.7	6.4659	51
100		23.3	18.7	14.0	2.0381	51		35.5	35 . 1	34.7	.1620	51		1532.4	1520 - 1	1506.0	5.8009	51
125		21.9	17.0	13.4	1.9205	51		35.6	35.1	34.8	.1408	51		1529.4	1515.7	1504.5	5.7064	51
150		20.5	15.8	12.9	1.7806	51		35.7	35.1	34.9	.1519	51		1526.2	1512.2	1503.2	5.5167	51
200		17.3	13.8	11.9	1.3060	51		35.6	35 . 1	34.9	. 1265	51	• •	1518.1	1506.9	1500.3	4.3402	51
250		15.0	12.5	11.3	. 8830	51		35.4	35.0	34.8	.1027	51		1511.8	1503.3	1499.2	3.0326	51
300		13.4	11.5	10.6	.5862	50		35.2	35.0	34.8	.0678	50		1507+4	1500.6	1497.4	2 . 1028	50
400		11.2	9.9	8 . 9	. 4097	50		35.0	34.9	34.7	.0563	50		1501 - 1	1496.5	1492.7	1.5340	50
500		9.7	8.8	7 . 8	.4152	50		34.9	34.8	34.7	.0558	50		1497.2	1493.8	1490.0	1.6015	50
600		8 . 7	7.9	7.0	. 4057	50	• •	34.8	34.7	34.7	.0505	50		1495.2	1492.0	1488.6	1.5974	50
700		8 . 3	7.2	6 . 4	.4179	4.9		34.8	34.7	34.7	.0500	49		1495 - 1	1490.9	1487.8	1.6392	49
800	• •	7 . 4	6 . 6	6.0	. 3592	49		34 . 9	34.7	34.7	.0545	49		1493.4	1490.2	1487.7	1.4463	49
900		6.9	6.0	5 . 4	.3300	48		34.8	34.8	34.7	.0504	48		1493.2	1489.7	1487.0	1.3797	48
1000		6 . 4	5.6	5 . 0	.3141	48		34 . 8	34.8	34.7	.0501	48		1492.8	1489.4	1487.1	1.3348	48
1100		5 . 9	5 . 1	4 . 6	. 2863	47		34.8	34.8	34.7	.0505	47		1492.5	1489.4	1487.3	1.1846	47
1200	0.0	5 . 4	4 . 8	4 . 3	.2399	33		34.8	34.7	34.7	.0508	33		1492 . 1	1489.5	1487.6	1.0113	33
1300		4 . 8	4 . 4	4 . 0	.1970	31		34.8	34.8	34.7	.0508	3.1		1491.6	1489.6	1487.9	.8608	31
1400		4.4	4.0	3.7	. 1725	29		34.8	34.7	34.7	.0509	29		1491.2	1489.8	1488.5	.7061	29
1500		4.0	3.7	3 . 4	.1636	29		34.8	34.7	34.7	.0509	29		1491.5	1490.1	1488.8	.6858	29
1750		3 . 6	3.0	2 . 8	. 1644	28		34.8	34.7	34.7	.0488	28		1493.9	1491.4	1490 . 6	.6577	28
2000		3 . 4	2.5	2 . 3	.2189	21		34.8	34.7	34.7	.0402	21		1497.4	1493.6	1492.6	. 9449	21
2500		3 - 1	2.0	1 . 7	. 2877	19		34.8	34.7	34.7	.0229	19		1504.3	1499.8	1498.7	1 - 1715	19
3000		2 . 7	1 . 8	1 . 5	. 2858	1.3		34 • 7	34.7	34.7	.0000	13		1511.4	1507.6	1506.4	1.1936	13
4000	• •	2.0	1 . 7	1 + 4	.3055	3		34 • 7	34.7	34.7	.0000	3	• •	1525.7	1524.4	1523.3	1 - 2124	3

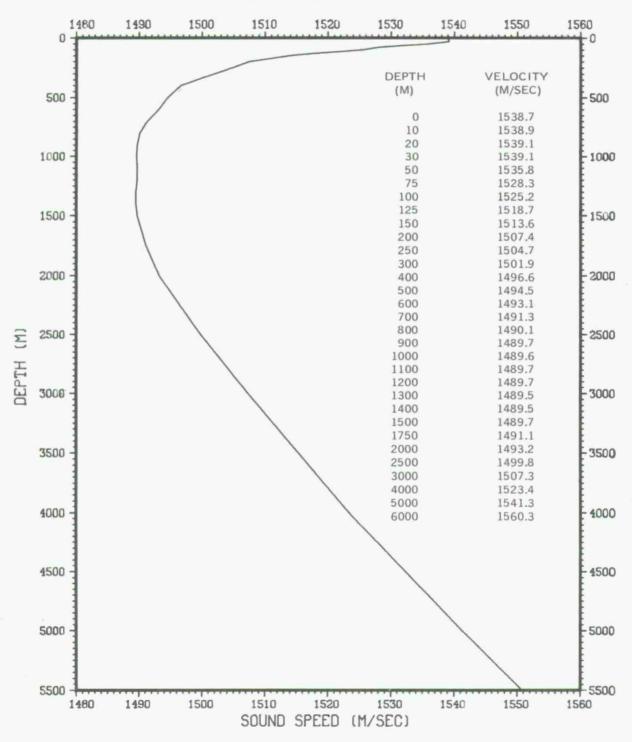
#### PROVINCE 13 JUN - SEP



## PROVINCE 13 OCT - NOV

			TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (H/S	EC)	
DEPTH				** * * * * * * * * * * * * * * * * * * *														
(:M:)		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM		MAX	MEAN	MIN	ST DEV	NUM
	• •	28 • 0	26.8	24.9	.7810	30		35.3	34.9	34.3	.2891	30	• •	1541.2	1538.8	1534.8	1.5537	30
10		28.0	26.8	24.9	.7810	30		35.3	34.9	34.3	. 2874	30		1541.3	1538.9	1535.0	1.5256	30
		28.0	26.7	24.9	.7902	30		35.3	34.9	34.3	. 2896			1541.5	1539.0	1535.2	1.5590	30
30		28.0	26.5	24.4	.8687	3.0		35.3	34.9	34.3	. 2956	30		1541.7	1538.7	1534.3	1 . 7289	30
50		27.9	25.5	19.6	1.7993	30		35 . 3	34.9	34.5	. 2675	30		1541.8	1536.7	1522.0	4.2108	30
75		27.2	23.2	16.1	2.6683	30		35.3	35.1	34.6	.1886	30		1540 . 7	1531.4	1512.3	6.8476	30
100		24.3	20.0	13.8	2.4091	30		35.3	35.1	34.9	.0997	30		1535 . 1	1523.8	1505.1	6.7447	30
125		23.3	17.9	13.1	1.9934	30		35.3	35.1	34.9	.0877	30		1532.9	1518.1	1503.1	5.8080	30
150		21.5	16.2	12.5	1.7190	30		35 . 3	35.1	35.0	.0758	30		1528.8	1513.5	1501.6	5 . 1755	30
200		17.7	14.0	11.6	1.2549	30		35 . 4	35.1	34.9	.0928	30	• •	1519.3	1507.4	1499.3	4.1017	30
250		14.6	12.6	11-1	.8250	30		35 . 3	35.0	34.9	-0817	30		1510.2	1503.8	1498.6	2.8253	30
300		13.0	11.6	10.6	.6669	30		35 • 1	35.0	34.9	.0556	30		1505.9	1500.9	1497.4	2.3503	30
400		11 + 4	10 - 1	8 . 6	.5661	29		35.0	34.9	34.8	.0557	29	0.0	1501.8	1497 - 1	1491.7	2.0866	29
500		10.0	9.0	8.0	.3990	29	• •	34.9	34.8	34.7	.0421	29		1498.3	1494.5	1490.9	1.4934	29
600		8 . 8	8 . 0	7 . 2	.3580	29		34 . 8	34.8	34.6	.0568	29		1495.5	1492.6	1489.6	1.3525	29
700		7 . 8	7 . 3	6.5	.3093	29		34.8	34.7	34.7	.0509	29		1493.2	1491.3	1488.3	1.1981	29
800		7 . 2	6.7	6 . 1	.2873	28		34.8	34.7	34.7	.0509	28		1492.5	1490.5	1488.3	1 - 1421	28
900		6 . 7	6 • 1	5 • 6	.2646	28		34.8	34.8	34.7	.0508	28		1492.4	1490 - 1	1487.8	1.0616	28
1000		6 • 1	5.6	5 • 3	.2062	26		34 . 8	34.8	34.7	.0508	26		1491.6	1489.8	1488.3	. 8354	26
1100		5 . 5	5 • 2	4.9	.1598	26		34.8	34.7	34.7	.0496	26		1490.9	1489.6	1488.5	.6378	26
1200		5.1	4 . 8	4.5	. 1564	26		34.8	34.7	34.7	.0471	26		1490.7	1489.6	1488.4	.6251	26
1300		4 + 7	4 - 4	4 • 1	.1442	26		34 . 8	34.7	34.7	.0430	26		1490.9	1489.7	1488.2	. 6244	26
1400		4.3	4 • 0	3 • 7	-1531	25		34 . 8	34.7	34.7	.0458	25		1491 • 0	1489.9	1488.4	.6410	25
1500		3 • 9	3 • 7	3 • 4	.1517	24	• •	34.8	34.7	34.7	.0442	24		1491 • 2	1490 - 1	1488.8	.6543	24
1750		3.4	3.0	2 . 8	.1359	23		34.8	34.7	34.7	.0422	23		1493.0	1491.4	1490.4	.5710	23
2000		2 . 8	2.5	2.4	.1118	23		34.8	34.7	34.7	.0288	23		1495.0	1493.6	1492.8	. 4781	23
2500		2 • 1	2.0	1 . 9	.0510	20		34.7	34.7	34.7	.0000	20		1500 - 3	1499.9	1499.3	. 2300	20
3000		1 . 9	1.8	1 • 6	.0814	16		34.7	34.7	34.7	•0000		• •	1507.9	1507.4	1506.7	.3317	16
4000		1 . 4	1 • 3	1 • 1	.1049	_		34.7	34.7	34.7	.0000		• •	1523.1		1521.8	.5269	6
5000		1 • 4	1 + 4	1 + 4	.0000	1		34.7	34.7	34.7	.0000	1		1541.1	1541 - 1	1541+1	.0000	1

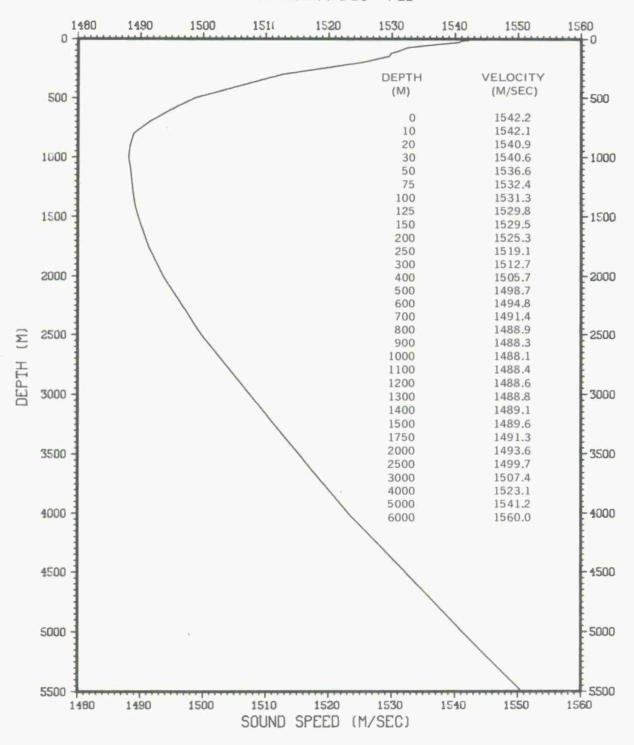
#### PROVINCE 13 OCT - NOV



## PROVINCE 14 DEC - FEB

		TEMP	ERATUR	E (C)				SA	LINITY	(PPT)				VELOC	ITY (H/S	ECI	
DEPTH																	
( M )	MAX	MEAN	MIN	ST DEV	NUM		MAX	HEAN	HIN	ST DEV	NUM		MAX	MEAN	HIN	ST DEV	NUM
0	 28.9	27.5	25 • 2	.9979	2.0	• •	35 • 2	34.7	34.2	.3109	28	• •	1543.1	1540.1	1535.5	2 • 1 0 3 9	2.0
10	29.0	27.4	25.2	9990		• •	35.2	34.7	34.2	. 2909	28		1543.6	1540.2	1535.7	2.0835	28
20	28.9	27.4	25 . 2	. 9646	100		35 . 2	39.7	34.2	. 2934	28		1543.6	1540.2	1535.9	2.0052	28
30	 28.8	27.1	24.3	1.1599	28		35 . 2	34.8	34.2	.2872	28		1543.5	1539.8	1533.4	2.4646	28
50	 28.3	26.0	20.3	1.8067	28		35.2	34.8	34.2	. 2546			1542.7	1537.7	1523.8	4.1170	28
75	 27.7	24.2	19.1	1.8384	28		35.3	35.0	34.4	.2183	28		1541.9	1534.1	1521.2	4.3332	28
100	 25.9	22.7	18.3	1.5207	28		35 . 5	35 . 1	34.8	.1988	28		1538.5	1530.8	1519.6	3.7535	28
125	 24.3	21.5	17.4	1.4176	28		35.6	35.2	34.9	.1938	28		1535.0	1528.3	1517.5	3.6334	28
150	 22.6	20.4	15.1	1.5509	28		35 . 7	35.3	34.9	.2038	28		1531.5	1525.9	1510 . 4	4.3184	28
200	 20.9	18.3	13.7	1.5415	28		35 . 8	35.4	34.9	.2233	28		1528.0	1521.0	1506.6	4 . 6249	28
250	 19.0	16.6	12.2	1.4612	28		35.7	35.4	35.1	. 2077	28		1523.9	1516.8	1502.5	4.5918	28
300	 17.4	14.7	11.0	1.4286	27		35.6	35.4	35.0	. 1575	27		1520 . 0	1511.8	1498.8	4.6879	27
400	 15 . 1	12.0	9.2	1.1755	26		35 . 4	35 . 1	34.8	.1350	26		1514.5	1504.2	1493.8	4.1587	26
500	 13.7	10.0	8.0	1.0810	26		35.2	34.9	34.7	.1116	26		1511.5	1498.5	1490.6	3.9950	26
600	 11.9	8 . 5	6.8	1.0049	26		35.0	34.7	34.6	.0864	26		1506.9	1494.3	1487.7	3.8112	26
700	 10.0	7 . 3	6 . 4	.7157	26		34 . 9	34.6	34.5	.0762	26		1501 . 8	1491.1	1487.7	2.8209	26
800	 8 . 6	6.3	5 . 7	.5564	26		34 . 8	34.6	34.5	.0752	26		1498.0	1488.8	1486.6	2 - 1997	26
900	7 . 4	5 . 6	5 . 2	. 4369	25		34.8	34.7	34.5	.0614	25		1495 . 2	1488.0	1486.2	1.7733	25
1000	 6.5	5 . 2	4 . 7	.3759	25		34 . 7	34.7	34.6	.0332	25	• •	1493.2	1487.8	1485.9	1.5076	25
1100	 5 . 8	4 . 8	4 . 3	.3323	25		34 . 8	34.7	34.6	.0351	25	• •	1492 . 1	1488.0	1485.8	1.3696	25
1200	5 . 2	4.5	4 . 0	.2801	25		34 . 8	34.7	34.6	.0289	25		1491.2	1488.2	1486.2	1.1706	25
1300	 4 . 7	4 . 1	3.7	. 2500	25		34.8	34.7	34.6	.0289	25		1490.6	1488.5	1486.6	1.0405	25
1400	 4 . 2	3.8	3 . 4	.2136	24		34.8	34.7	34.6	.0359	24		1490.5	1488.8	1487.3	.8632	24
1500	3.9	3 . 5	3 - 1	.1794	24	• •	34.8	34.7	34.6	.0408	24		1490.8	1489.3	1487.7	.7379	24
1750	 3 . 2	2.9	2 . 7	. 1560	21		34 . 8	34.7	34.6	.0561	21		1492.3	1491 - 1	1490 . 1	.6523	21
2000	2.6	2.5	2 • 1	.1219	17		34.8	34.7	34.7	.0470	17		1494.1	1493.4	1491.8	.5243	17
2500	2 • 1	1 . 9	1 • 7	. 1327	1.1		34.8	34.7	34.7	.0522	1 1		1500.0	1499.6	1498.5	. 3995	11
3000	1 . 9	1 . 7	1 . 6	.0991	8		34.8	34.7	34.7	.0535	8		1507.9	1507 . 1	1506.6	.3882	8
4000	 1 + 4	1 + 4	1 . 3	.0516	6	• •	34.8	34.7	34.7	.0548	6	• •	1523.3	1523.1	1522.7	.2345	6

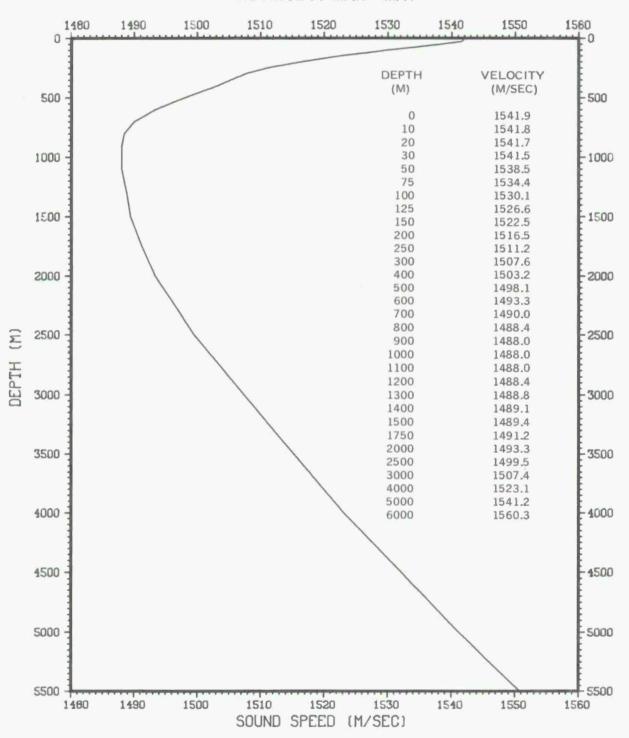
#### PROVINCE 14 DEC - FEB



## PROVINCE 14 MAR - MAY

	TEMPERATURE (C)								SA	LINITY	(PPT)		VELOCITY (M/SEC)						
DEPTH														w				100000	
( H )		MAX	HEAN	MIN	ST DEV	NUM		KAH	HEAN	MIN	ST DEV	NUM		MAX	MEAN	HIN	ST DEV	NUM	
0		29.0	27.5	24.4	1.2142	36		35 • 0	34.6	34.2	. 2457	36	• •	1543.6	1540 - 1	1533.3	2.6575	36	
10		29.0	27.5	24.4	1.2038	36		35.0	34.6	34.2	.2344	36		1543.8	1540.3	1533.6	2.6175	36	
20		29.0	27.4	24 . 4	1-1704	36		35.0	34.6	34.2	.2263	36		1543.9	1540.3	1533.7	2.5563	36	
30		28.7	27 . 3	24.4	1.1609	36		35 - 1	34.7	34.2	.2335	36	• •	1543.5	1540 . 2	1533.8	2.5071	36	
50		28.7	26.4	24 . 4	1.1002	36		35.2	34.8	34.2	. 2298	36	• •	1543.7	1538.7	1534.1	2.3982	36	
75		26.6	24.5	22.4	1 - 1571	36		35 . 3	35.0	34.4	.2048	3.6	• •	1539.7	1534.8	1530 . 1	2.6172	36	
100		25 . 1	22.5	21 • 3	.8347	36		35.5	35 . 1	34.7	. 1576	36	• •	1537.0	1530.4	1527.2	2.0293	36	
125		23.0	20.9	19.4	.8810	36		35.5	35.3	35.0	. 1539	36		1532 - 1	1527.0	1522.6	2.3590	36	
150		21.9	19.7	17.7	1.0686	36		35.6	35.3	35.0	.1687	36		1529.8	1524.2	1518.5	3.0414	36	
200		20.3	17.9	15.3	1.2727	36		35.7	35 . 4	35 . 1	.1730	36		1526.7	1519.9	1511.7	3.8126	36	
250		18.9	16.0	13.6	1.4600	36		35.7	35.4	35.1	.1903	36	• •	1523.6	1514.9	1507.2	4 . 6717	36	
300		17.5	14.3	12.5	1.3279	36		35 . 7	35.3	34.8	. 2049	36		1520 . 4	1510.5	1504.1	4.4641	36	
400		15.0	12.0	10.4	1.0093	36		35 . 4	35 . 1	34.8	.1464	36		1514.2	1504.2	1498.2	3.5929	36	
500		12.8	10.4	9.0	. 9063	36		35.3	34.9	34.8	.1260	36		1508.4	1499.7	1494.5	3.3777	36	
600		10.9	8.9	7 . 7	.8714	35		35 . 1	34.8	34.6	.1065	35		1503.5	1495.8	1491.3	3.3296	35	
700		9.8	7.6	6 . 6	. 7805	35	• •	35.0	34.7	34.5	.0843	35		1500.8	1492.6	1488.6	3.0473	35	
800		8.3	6.5	5.7	.5241	34		34.9	34.6	34.5	.0783	34		1496.8	1490.0	1486.7	2.0910	34	
900		6.8	5 . 8	5.3	.3839	30		34.8	34.6	34.5	.0728	30		1492.7	1488.8	1486.6	1.5410	30	
1000		6.0	5 . 2	4 . 7	. 3203	29		34.7	34.7	34.5	.0632	29		1491.3	1488.1	1485.8	1.3410	29	
1100		5 . 4	4 . 8	4 . 3	.3004	28		34.7	34.7	34.5	.0559	28		1490 . 3	1488.0	1485.7	1.2878	28	
1200		5 . 0	4.4	3.9	. 3258	22		34.7	34.7	34.5	-0581	22		1990.5	1487.9	1485.8	1.3914	22	
1300		4 . 7	4 . 0	3 . 5	. 3356	21		34.7	34.7	34.6	.0436	21	• •	1490.8	1488 . 1	1485.9	1 . 4534	21	
1400		4.3	3 . 7	3 . 2	.3066	20		34.7	34.7	34.6	.0366	20		1491.1	1488.5	1486.2	1.3061	20	
1500		4.0	3 . 4	3.0	. 2665	20		34.7	34.7	34.6	.0224	20		1491.3	1487.0	1487.2	1.1500	20	
1750		3 . 2	2.8	2 . 6	. 2009	1.9		34.8	34.7	34.6	.0333	19		1492.2	1490.6	1487.4	. 8595	19	
2000		2.7	2 . 4	2.2	-1401	16		34.8	34.7	34.7	.0342	16		1494.2	1493.1	1492.3	.5439	16	
2500		2 . 0	1.9	1 . 8	.0786	11		34.8	34.7	34.7	.0302	1.1		1499.9	1499.5	1499.0	.3443	1.1	
3000		1 . 8	1.8	1 - 7	.0408	6		34.7	34.7	34.7	.0000	6		1507.6	1507.5	1507.4	.0817	6	
4000		1 . 3	1 . 3	1 . 3	.0000	1	• •	34.7	34.7	34.7	.0000	1	• •	1522.8	1522.8	1522.8	.0000	1	

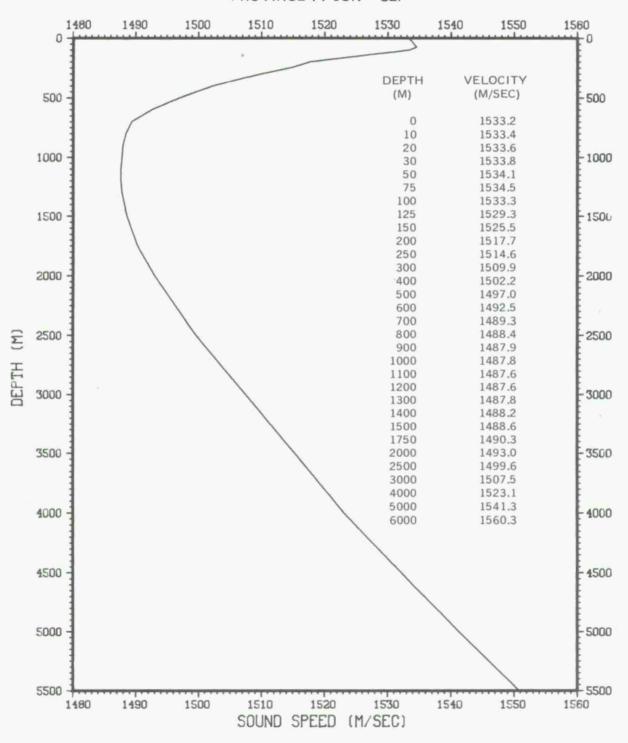
#### PROVINCE 14 MAR - MAY



## PROVINCE 14 JUN - SEP

	TEMPERATURE (C)								SA	LINITY	(PPT)			VELOCITY (M/SEC)						
DEPTH																				
( M )=		MAX	MEAN	HIN	ST DEV	NUM		HAX	MEAN	rt I N	ST DEV	NUH		MAX	MEAN	MIN	ST DEV	NUH		
0		26.1	24.7	22.6	.8146	37	• •	35 • 3	34.8	34.4	.2130	37	• •	1536.9	1533.9	1529 - 1	1 . 8249	37		
10		26.2	24.7	22.6	.8221	37		35.3	34.8	34.4	.2128	37		1537 . 1	1534.0	1529.2	1.8260	37		
20		26.2	24.7	22.6	.8177	37	• •	35.3	34.8	34.4	.2065	37	• •	1537.3	1534.2	1529.4	1.8105	37		
30		26.2	24.7	22.6	.8074	37		35.3	34.8	34.4	.2132	37		1537.5	1534.3	1529.6	1.7862	37		
50		25.8	24.6	22.5	.7939	37	• •	35 . 3	34.8	34.4	.2137	37		1537.2	1534.4	1529.7	1.7360	37		
75		25.5	24.0	21.6	.9166	37		35.3	35.0	34.6	. 1774	37		1536.7	1533.5	1527.9	2.1305	37		
100		24.1	22.6	19.6	1.0243	37		35.4	35.1	34.8	.1300	37		1534.4	1530.9	1523.0	2.5311	37		
125		23.2	21.3	18.1	1.0938	37		35.5	35.3	35.1	.1004	37		1532.8	1528.0	1519.0	2.9125	37		
150	0.0	22.5	20.1	17.0	1.1369	37		35.6	35.4	35.2	.1146	37		1531.6	1525.3	1516.2	3 - 18 11	37		
200		21 . 1	18.0	15.5	1.3357	37		35.7	35.4	35.2	. 1387	37		1528.9	1520.4	1512.6	3.9760	37		
250		19.6	16.3	13.9	1.4331	36		35.7	35.4	35.1	.1743	36		1525.8	1515.9	1508.2	4.5766	36		
300		17.6	14.7	12.6	1.3260	36		35.6	35.4	35.0	.1966	36		1520.9	1511.6	1504.5	4.4097	36		
400		14.2	12.2	10.0	1.0467	36		35.3	35.1	34.9	.1327	36		1511.7	1504.7	1497.0	3.7275	36		
500		12.0	10.4	8 . 5	1.0086	36		35 . 1	34.9	34.7	.1260	36		1505.8	1500.0	1492.7	3.7973	36		
600		10.6	8.9	7.5	. 9967	36		34.9	34.7	34.6	.0910	36		1502.2	1496.0	1490.3	3.8405	36		
700		9.0	7.6	6.5	.8426	36	• •	34.7	34.7	34.5	.0607	36		1498.0	1492.6	1488.3	3.2604	36		
800		7.6	6 . 6	5 . 7	. 5835	35		34.7	34.6	34.5	.0598	35		1494.0	1490.0	1486.5	2.2819	35		
900		6.5	5 . 8	5.3	. 3309	35		34.7	34.6	34.5	.0611	35		1491.3	1488.6	1486.5	1.3289	35		
1000	0.0	5 . 9	5.2	4 . 8	.2393	35		34 . 7	34.7	34.6	.0490	35		1490.6	1487.9	1486.1	.9471	35		
1100		5.2	4 . 8	4 . 5	. 2020	34		34.7	34.7	34.6	.0475	34		1489.8	1487.9	1486.5	.8969	34		
1200		4 . 8	4 . 4	4.0	. 2250	32		34.7	34.7	34.6	.0440	32		1489.8	1487.9	1486.4	. 9448	32		
1300		4 . 5	4 . 0	3.6	. 2471	32		34.7	34.7	34.6	.0369	32		1490.2	1488.1	1486.1	1.0234	32		
1400		4 . 2	3.7	3 . 4	. 2407	28		34.8	34.7	34.6	.0272	28		1490.4	1488.5	1487.1	. 9826	28		
1500	0.0	3.9	3 . 4	3 - 1	. 2269	28		34 . 7	34.7	34.6	.0189	28	• •	1490 . 9	1489.0	1487.6	. 9684	28		
1750		3 . 6	2.9	2.6	.2101	26		34.7	34.7	34.7	.0000	26		1493.8	1490.7	1489.4	. 8746	26		
2000		3 . 3	2 . 4	2 . 2	. 2449	16		34.7	34.7	34.7	.0000	16		1496.8	1493.2	1492.3	1.0175	16		
2500		2 . 7	2.0	1 . 8	. 2086	15		34.8	34.7	34.7	.0352	15		1502.8	1499.9	1499.0	.8749	15		
3000		2 • 1	1 . 8	1 + 7	.1188	13		34.7	34.7	34.7	.0000	13		1508.9	1507.6	1507.1	.4816	13		
4000		1 . 3	1 - 3	1 + 1	.0756	7	• •	34 • 7	34.7	34.7	.0000	7	• •	1523.1	1522.8	1522 - 1	.3259	7		

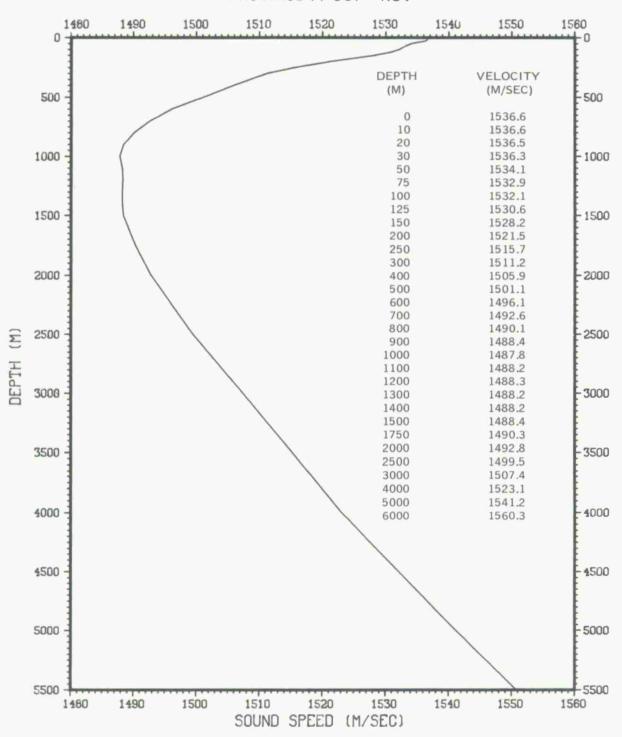
#### PROVINCE 14 JUN - SEP



## PROVINCE 14 OCT - NOV

0507	TEMPERATURE (C)							SA	LINITY	(PPT)			VELOCITY (M/SEC)						
DEPTH (M)	MAX	HEAN	MIN	ST DEV	NUM		HAX	MEAN	MIN	ST DEV	NUH		MAX	MEAN	HIN	ST DEV	NUH		
_	 26.2	25.4	23.8	.5902	14	• •	35+3	35.2	35.1	.0646	1.4	• •	1537+8	1536.1	1532.2	1.4090	1.4		
10	26.1	25.4	23.8	.5677	14		35.3	35.2	35.2	.0469	1.4	• •	1537.8	1536.2	1532.3	1.3607	14		
20	26.0	25.2	23.5	.6298	1.4		35 • 3	35.2	35.2	.0514	1.4	• •	1537.8	1535.9	1531.7	1.5345	14		
30	25 . 9	24.9	22.5	.8635	1.4		35 • 3	35.2	35 • 1	.0611	14		1537.6	1535.3	1529.7	2.0395	14		
50	25.6	24.1	22 • 3	.7910	1.4		35 • 3	35.2	35.0	.0829	1.4	• •	1537.3	1533.8	1529.4	1 . 9227	1.4		
75	24.8	23.4	21.8	.6924	1.4		35 • 4	35.2	35.0	.1016	1.4	• •	1535.8	1532.5	1528.6	1 . 6731	1.4		
100	23.9	22.9	21.4	.6426	14		35.4	35.1	35.0	.1019	1/4		1534.1	1531.6	1527.9	1.5703	14		
125	23.3	22.2	20.8	.7670	1.4		35.5	35.2	35 - 1	•1092	1.4	• •	1533.1	1530.2	1526.9	1.8993	14		
150	22.7	21 - 2	19.9	.8306	1.4		35.5	35.3	35.2	.0975	1.4	• •	1531.0	1528.2	1524.6	2.1000	1.4		
200	20.5	18.9	17.4	.8185	14		35.6	35 • 4	35.2	.1051	14	• •	1527 • 1	1522.9	1518.2	2.3581	1.4		
250	18.2	16.7	15.4	.7240	1.4		35.6	35.4	35.2	.1328	1.4	• •	1521.5	1517.3	1513.0	2 . 20 9 4	1.4		
300	15.7	14.8	13.9	. 4991	1.3		35 . 6	35.4	35 • 1	.1561	13	• •	1515.2	1512 • 1	1508.9	1.7754	13		
400	13.2	12.3	11.7	.4781	1.3		35 • 3	35.2	35.1	.0768	13		1508.6	1505.1	1503.0	1.7236	13		
500	11.8	10.6	9.6	.7047	13		35 • 1	34.9	34.8	.1050			1505.1	1500.7	1496.8	2.6423	13		
600	11+1	9.0	7.8	.8436	1.1	• •	35.0	34.7	34.6	.1036	1.1		1504-1	1496.1	1491.5	3 . 1825	11		
700	7 . 8	7 . 3	6.7	.3472	10		34.7	34.6	34.6	.0422	10	• •	1493.4	1491.5	1488.9	1.3666	10		
800	 6 . 7	6.3	5 . 9	. 2591	10		34.7	34:6	34.6	.0422	10		1490 - 3	1489.1	1487.4	. 9924	10		
900	5 . 9	5 . 7	5 . 4	.1647	10		34.7	34.6	34.6	.0516	10		1489.0	1488.1	1487.0	.6377	10		
1000	5 . 3	5 . 1	4 . 8	. 1 4 9 4	10		34.7	34.7	34.6	.0516	10		1488.3	1487.6	1486.4	.5395	10		
1100	5.0	4 . 7	4 . 4	. 1955	10		34.7	34.7	34.6	.0483	10		1488.8	1487 . 7	1486.3	.7885	10		
1200	 4 . 5	4 . 3	4 + 1	.1509	10		34 . 7	34.7	34.6	.0422	10		1488.6	1487.8	1486.6	.6767	10		
1300	 4.2	4.0	3.8	.1101	10		34 + 7	34.7	34.7	.0000	10		1489.0	1488.0	1487 . 1	.5122	10		
1400	 3 . 9	3.7	3.5	.1317	10		34 . 7	34.7	34.7	.0000	10		1489.1	1488.3	1487.6	. 4644	10		
1500	 3 . 6	3 . 4	3 . 2	.1197	10		34.7	34.7	34.7	.0000	10		1489.6	1488.8	1488.1	. 4864	10		
1750	 2 . 9	2.8	2 . 7	.0816	10		34.7	34.7	34.7	.0000	10		1491.1	1490.5	1489.9	.3840	10		
2000	 2.6	2.5	2 . 2	.1188	8		34 . 7	34.7	34.7	.0000	8		1493.7	1493.2	1492.2	. 4950	8		
2500	 2 . 1	2.0	1 . 8	.1113	7		34 . 7	34.7	34.7	.0000	7		1500.3	1499.8	1499.0	. 4860	7		
3000	 1 . 9	1 . 8	1 . 6	.1169	6		34.7	34.7	34.7	.0000	6	• •	1508-1	1507.6	1506.9	. 4446			
4000	 1 • 4	1 . 3	1 + 1	.1140	5		34.7	34.7	34.7	.0000	5		1523.2	1522.7	1522.2	.4159	5		

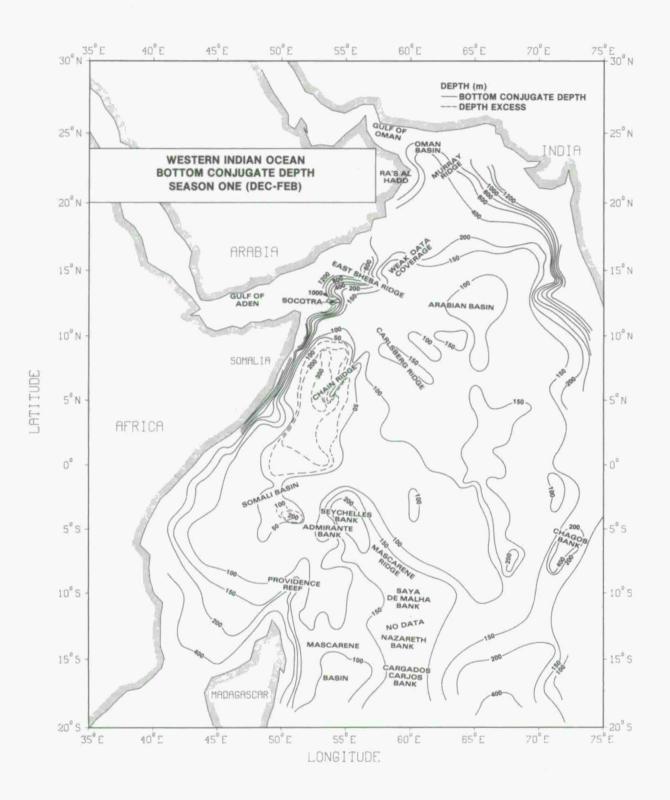
#### PROVINCE 14 OCT - NOV

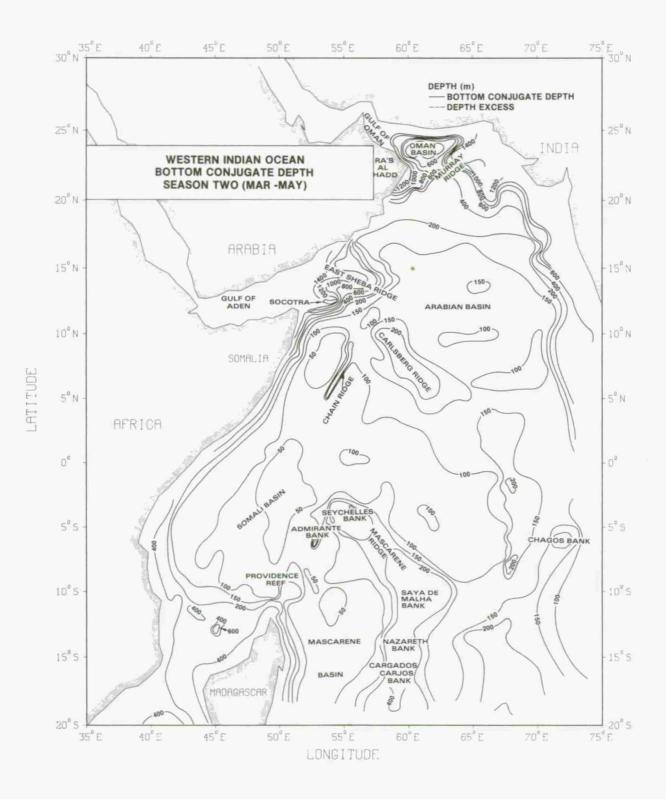


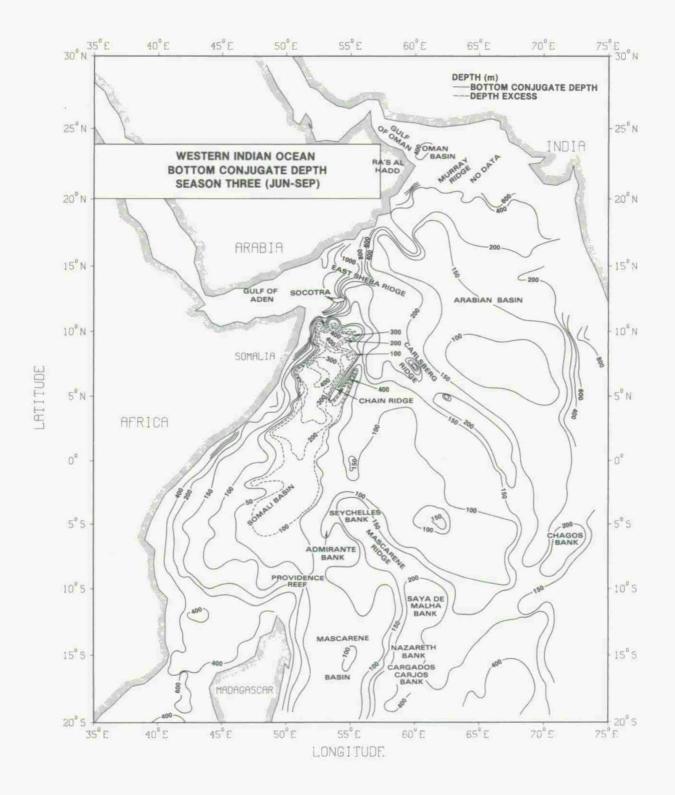


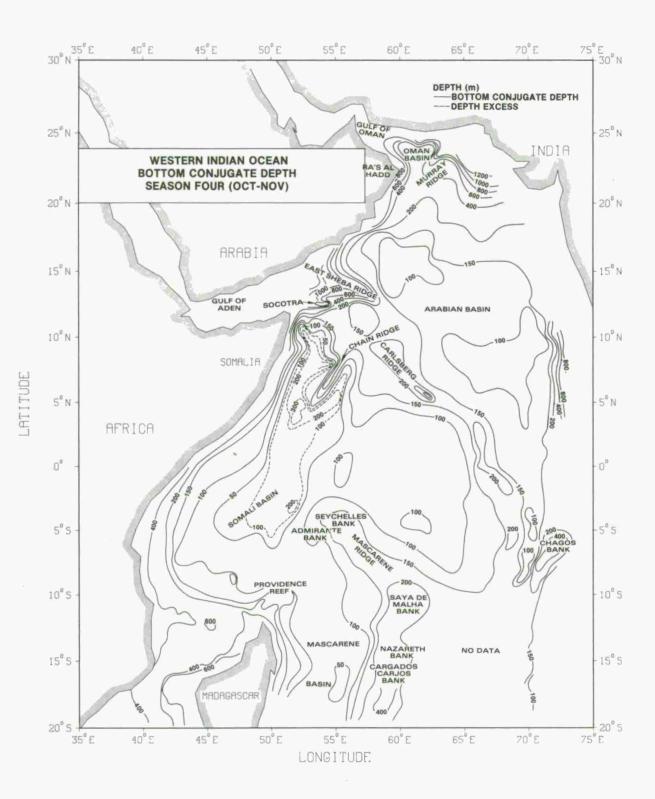
APPENDIX B: BOTTOM CONJUGATE DEPTH AND DEPTH EXCESS CONTOUR CHARTS ARRANGED BY SEASON





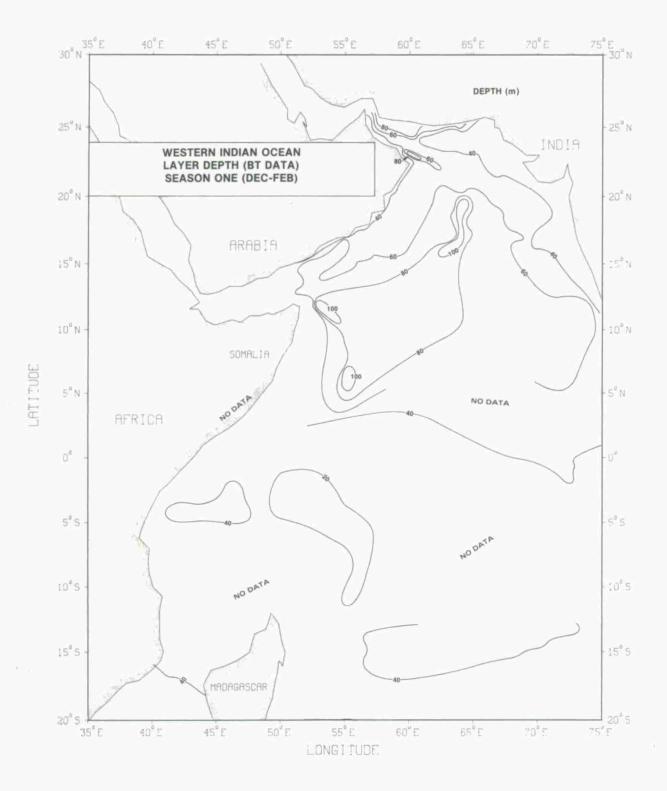


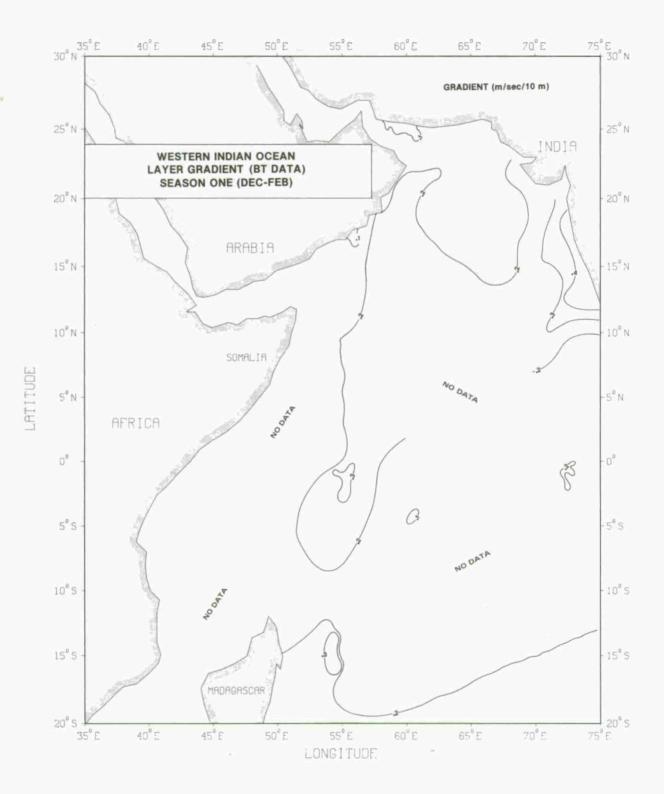


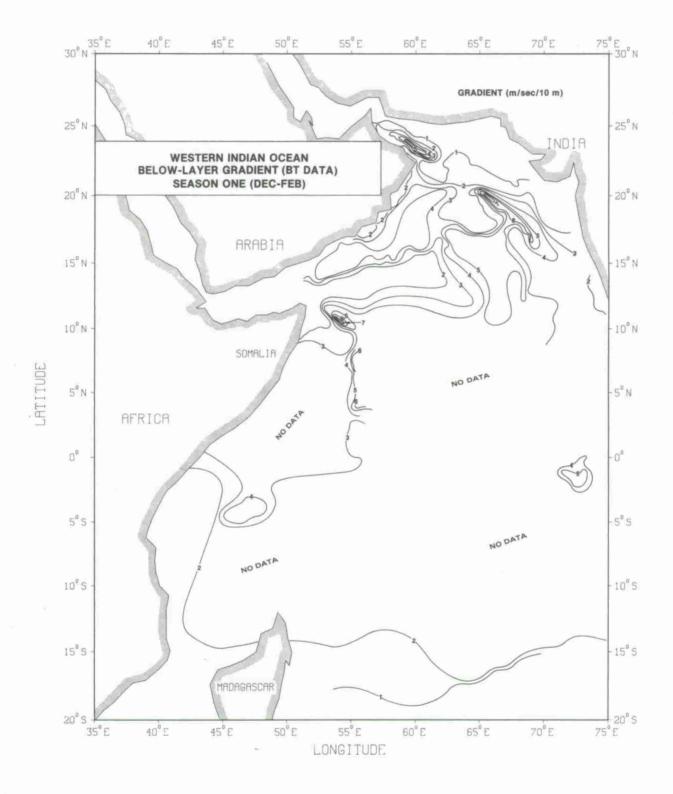


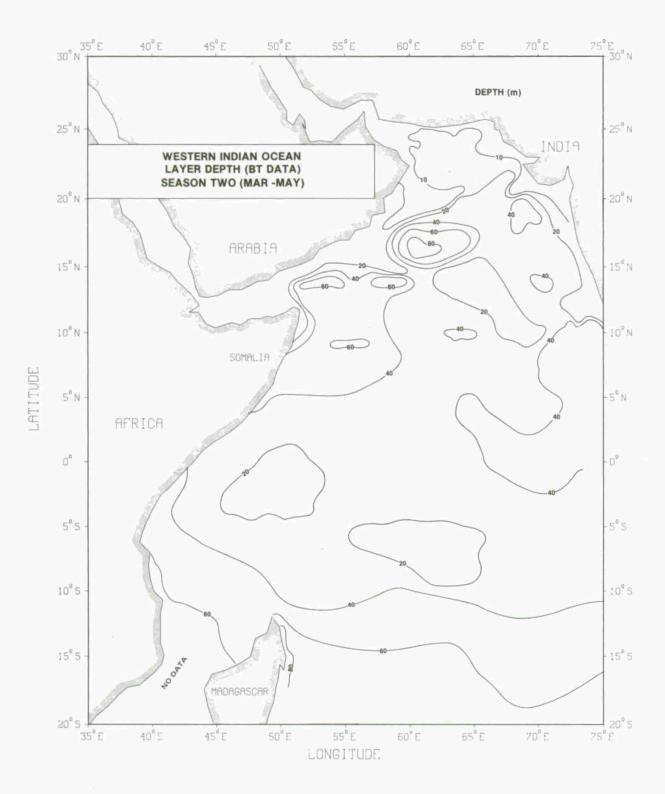
APPENDIX C: NEAR-SURFACE PARAMETER CONTOUR CHARTS BASED ON BT DATA ARRANGED BY SEASON

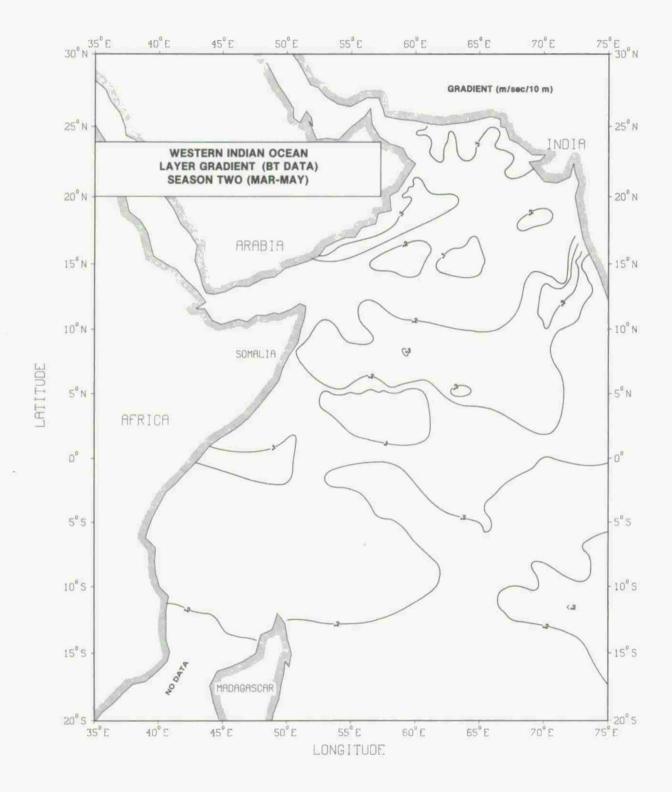
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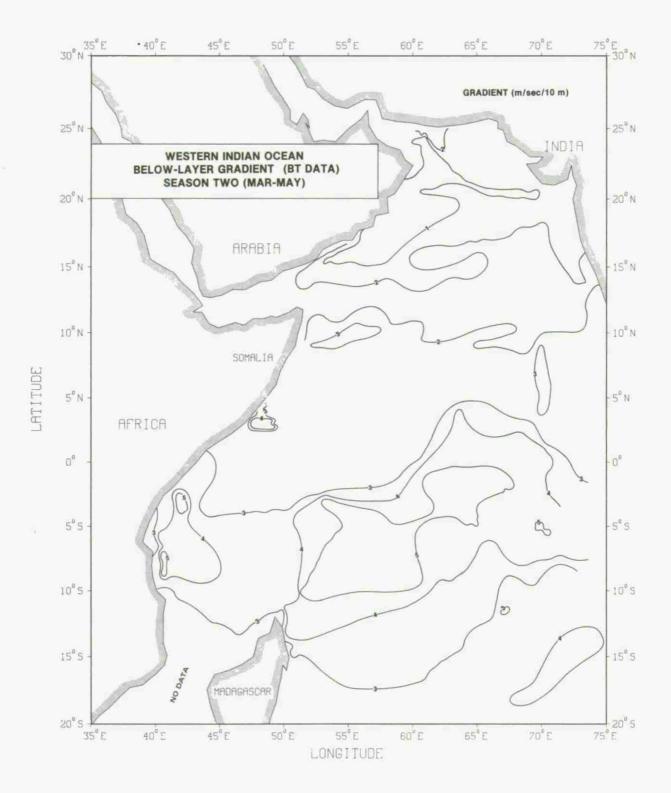


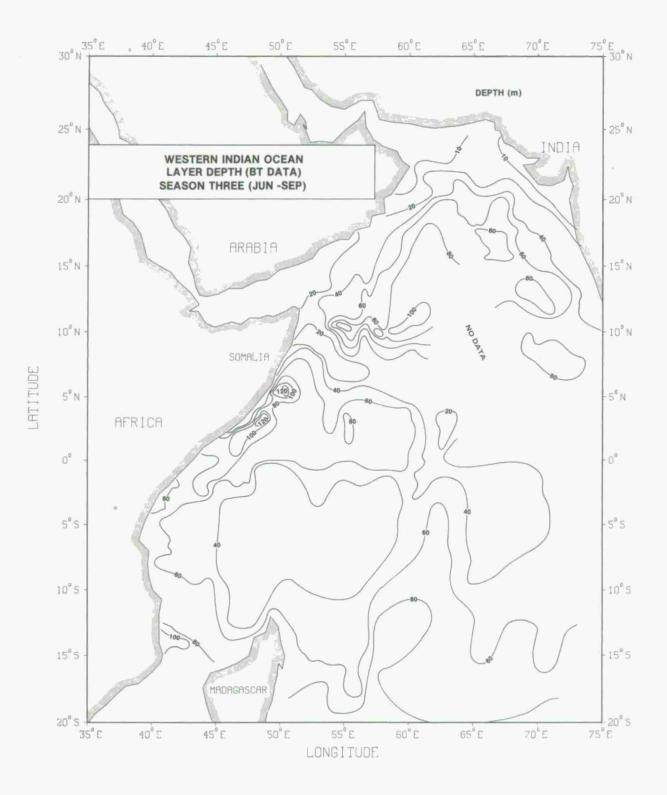


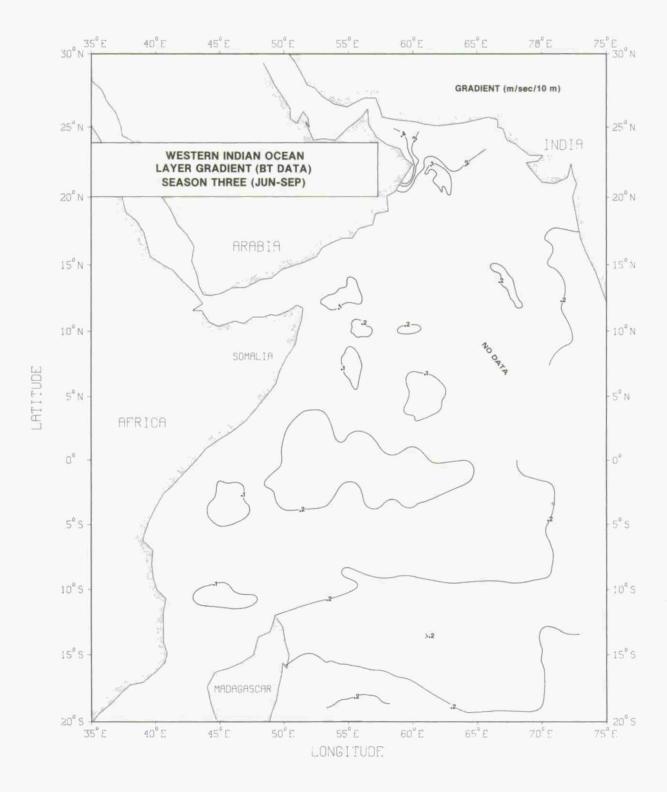


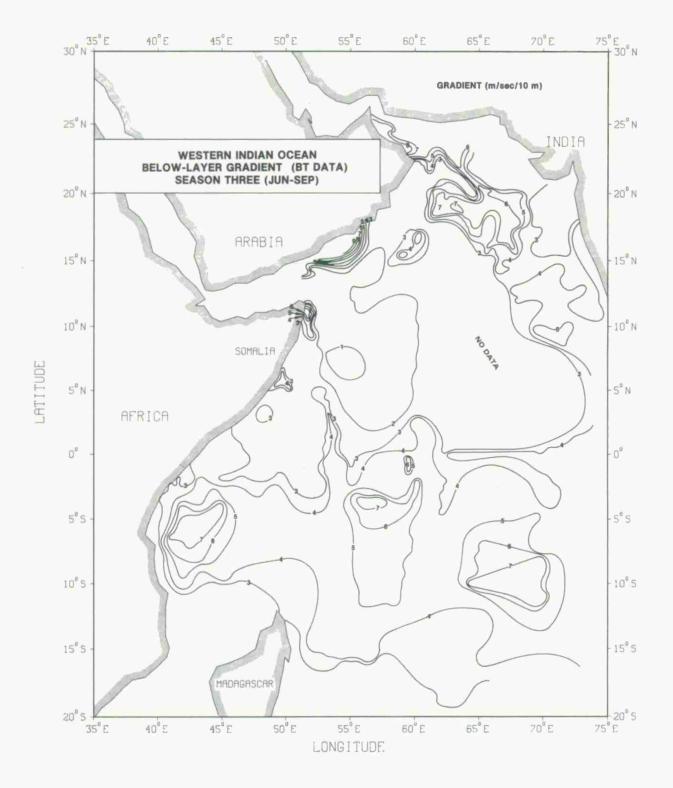


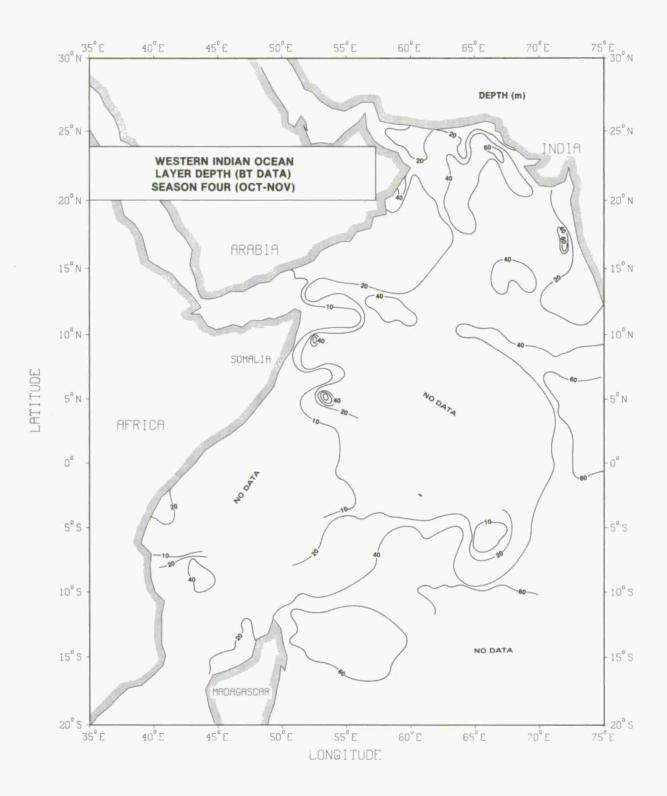


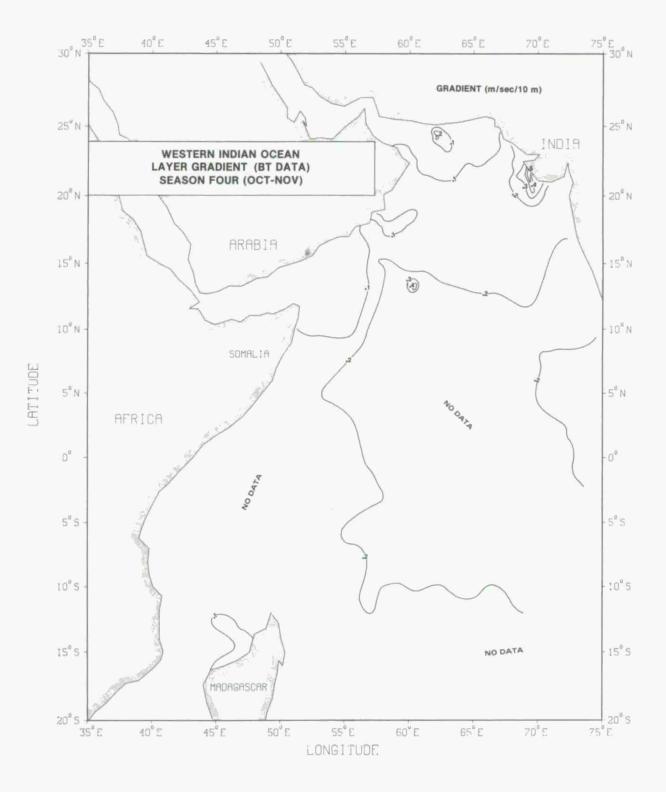


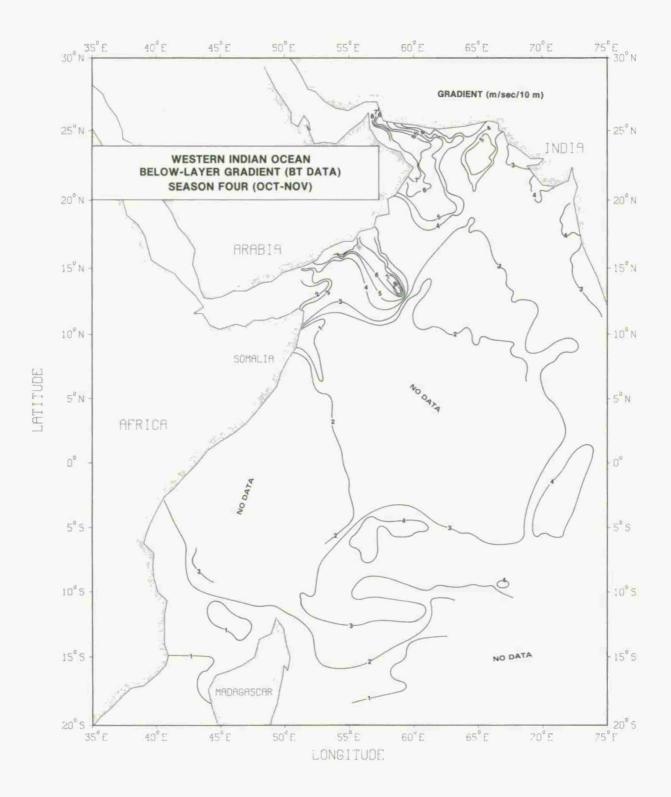












APPENDIX D: NEAR-SURFACE PARAMETER CONTOUR CHARTS BASED ON XBT DATA ARRANGED BY SEASON

